Echelle setups

	x grating 600 l/mm	0
29/12/97	4508 Å	Natural
22/12/97	4508 Å	0600 l/m
12/01/98	"	"
20/03/98		
29/03/98		
31/03/98		
10/04/98		
~~13/04/98~~		

1 3

Spectr. Temp

Focus .....

Spectr. Temp

Exp. Mtr.	S

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... 4 ...

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality

DAVID DUNLAP OBSERVATORY
74" LOGBOOK
VOL. 89
PLATE NOS. CC 50686 - CC 15874
DEC-1997 - APRIL 1998

Pg #1 Tues/Wed

Date ...1997.Dec.2/3.. Observers ...Lu/Jn..(Seattle.mostly)

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC506 86/87	Inboard/out	BOARD						FeAr ND3	47
88	BIAS(4)	(after following observation)		17 23					0
89	Comp							"	4
90	HD205730	21 32 14	+45536	17 19 44					68
91	Comp							"	4
92	comp							"	4
93	HD44982	06 19 48	82 21 00	17 32 52					1000
94	comp							"	4
95	HD44982	"	"	17 51 35					1200
96	comp							"	4
97	HD44982	"	"	18 13 45					1140
98	comp							"	4
99	BIAS(4)			18 34					
700	Comp							"	4
01	GSC5198 *	21 21 46	-03 11 58	18 47 01					720
02	comp								

Spectr. Temp

Focus 6

Spectr. Temp

Exp. Mtr.	S
1000V	
48K	
911	
755	
934	
1247	

Spectr. Temp. ..... Dome Temp./Hum. +1.0°C 62%H Transparency Conditions ... Fine 6

Focus ... 6.95 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 ccDFMT

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ cc	P.H.	Program	Remarks	Quality
447	1000 V				CHSS CCD	1800 l/m 47.06	306μ	5184Å	3/4			
0									1			
4									5			2.5K
68	4.8K	1"	5.53	M5 III cue					6	Just used normalization star		2.8K
4									7			
4									7			
1000	911	2"	9.8	G5V					8		Δα 0001.53 Δδ −0001.20	
4									9			
1200	755	2	"	"					10			
4									11			
1140	934		"	"					12			
4									13			
									1			
4									13		Δα −00 00 12 Δδ −00 01 06	
720	1247	2"	9.7	G0					14		WRong Star	
									15			

7PG2 Tues/Wed

Date 1997 Dec 2/3 Observers Lu/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC50703	comp							FzAr ND3		
04	GSC5198	21 21 46	-03 11 58	19 08 24					900	294
05	"	"		19 23 57					960	297
06	Comp							"	4	
07	BIAS (4)			19 42					0	
08	Comp							"	4	
09	TT Cet	01 46 57	-09 45 06	19 53 08					900	170
10	Comp								4	
CC50187/90	HD37765	00 35 18	+39 40 00	20 18				4x	67mc	
91/92	"							2x	133ms	
CC50711	comp							"	4	
12	HD37765	00 35 18	39 40 00	20 21 21					333	2090
13	comp							"	4	
14	comp							"	4	
15	TT Cet	01 46 57	-09 45 06	20 39 40					1200	288
16	comp							"	4	

Spectr. Temp. −100,3°C Dome Temp./Hum. −1.5°C/70.7% Transparency Conditions ..... some cloudy ... O.

Focus ..... 6,95 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... ed 400 0 SD 1024 4 1 CCD FUNT

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	1800 l/mm 47,06	306	5784	15			
	900	294	2"	9.7	GO					16		Correct star $\Delta\alpha$ -00 00 35 $\Delta\delta$ +00 01 12	
	900	297								17		through clouds.	
	4									18			
	0									1			
	4									18			
	900	170	2-3"	10,0	A					19			
	4									20			
	67 secs		1-2"	guess			Above	306 u Slit			Seeing TEST	Pearson Airport NNW 7 Km/hr (102.3 Kpascal And Rising)	
	135 secs												
	4			~~7,36~~	~~dKS~~					20		ALT 86°	
	338	2090	1"-2"	7,36	dKS					21			
	4									22			
	4									22			
	1200	288	1"-2"	10,0	A					23			
	4									24			

9 PG 3

Date 1997 Dec 2/3 Observers Lu/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	S
cc50717	BIAS(4)			21 00							
18/24	flats							Tung ND 4	6		
25	comp							FeAr ND 3	4		
26	HD44982	06 19 48	82 21 00	21 16 38					960	838	
27	"	"	"	21 32 59					960	830	
28	comp							"	4		
29	HD44982	"	"	21 51 29					970	820	
30	"	"		22 07 59					960	847	
31	comp							"	4		
32	BIAS(4)			22 25							
33	comp							FeNe ND 5	4		
34	Vys 410 B	02 49 10	55 02 14	22 33 42					1800	226	
35	comp							"	4		
36	Vys 410 A	"	"	23 07 11					1196	462	
37	comp							"	4		

Spectr. Temp.
Focus
Spectr. Temp

Spectr. Temp. −100.3°C Dome Temp./Hum. −1.8°C/72% Transparency Conditions OK 10

Focus 6.95

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47.06	306μ	5184	1			
								2			
								24			
838	2"-3"	9.8	GSV					25	Lu		
830		"	"					26			
								27			
820	2"-4"	"	"					28			
847		"	"					29			
								30			
								1			
					1800 l/mm 47.75	306μ	5300	5			
226	1"-2"	11.2	MO					6	AC+55 19225	(NO ADU above SKY)	
								7			
462	2"	10.5	MO					8	AC+55 19224	200 ADU ABOVE	
								9			

11 Pg#4 Tues/Wed

Date 1997 Dec 2/3 .... Observers [Vys.]/Tn./Lu.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
cc50738	BIAS(4)			233947					0	1000V
39	Comp							FeNe ND5	4	
40	Vys 416B	030825	+574808	234147					1300	280
41	Comp							"	4	
42	Vys 416A	"	"	000526					1111	285
43	comp							"	4	
44	Comp	~2000						"	4	
45	Vys 419C	032412	234630	003144					1840	182
46	comp							"	4	
47	Vys 419A	"	"	010603					961	253
48	Comp							"	4	
49	BIAS(4)			012336					0	
50	Vys 419B	"	"	012824					1140	145
51	Comp							"	4	
52	Comp							"	4	

Spectr. Temp
Focus 6
Spectr. Temp

Spectr. Temp. ..... Dome Temp./Hum. ~2.7°C 76.7%H Transparency Conditions ... Fine 12

Focus .... 6.95 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	0	1000 V				CHSS CCD	1800/m A7.75	30u	5300Å	1			
	4									9			
	1/30	280	1"-3"	~10	MO					10	AC+58 20565	North = slightly fainter	
	4									11			
	1111	285		~10	MO					12	AC+58 20564	South one	
	4									13			
	4									13			
	1840	182	1"-2"	11.89	M					14	through clouds		
	4									15			
	94	255	3"-4"	10.38	M					16	419 A	~~70 AQU above star~~ not very separate from B	
	4									17			
	0									1			
	112	125	1"-3"	~~~11 10.38~~	M					18	419B	North = ~~Faint tail~~ of pair	
	4									19		separation FAIR	
	4									19			

13 Pyx 5

Date 1997 Dec 2/3 .... Observers [Vys.] / T.H. / Lu .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
C-50753	HD 36395	05 26 15	-03 41 00	01 53 40					483	500V 15K
54	Comp							NDS FeNe	4-5	
55	Comp							"	4	
56	Vys 560 BD-02 3000 2000	09 53 13	-03 41 18	02 07 50					873	300
57	Comp							"	4	
58	Vys 560	"	"	02 24 14					846	300
59	comp							"	4	
60	Vys 560	"	"	02 40 17					839	300
61	comp							"	4	
62	BIAS (4)			02 55					0	
63	comp							"	4	
64	BD+01 2447	10 23 49	01 21 36	03 00 15					921	600
65	comp							"	4	
66	comp Vys 238	06 32 57	71 59 24	03 25 09					987	47
67										
68	Comp							"	4	

Spectr. Temp. 100.3°C Dome Temp./Hum. -3.9°C 81% H Transparency Conditions ... POOR T. Cloudy ... H.

Focus ..... 6.95 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	P. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 115K	5-4"	7.95	M1	CASS	1800 l 47.75	306μ	5300Å	20	Macy Std/HCl		
		7						21			
								21			
300	2"-3"	10.54	MO					22	Hk pyn		
								23			
300		"	"					24			
								25			
300		"	"					26			
								27			
								1			
								27			
600	3"	9.65	M2					28	Macy Std/1		
								29			
								29			
277	2"	11.0	MO					30	AC+72 3338		
								31			

15PG6 Tuas/wel

Date 1997 Dec 2/3 Observers [VysJ/Lu/Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC50769	comp							FeNe ND5	4
70	BD+33 2071B	10 58 11	33 25 38	03 52 36					2243
71	Comp							"	4
72	BIAS(4)			0432					0
73	BD+33 2071C	"	"	043327					2100
74	Comp							"	4
75	BD+33 2071A	"	"	05 10 38					1273
76	comp							"	45
77	Comp							"	4c
78	HD95735	10 57 54	36 38 00	05 37 58					282
79	Comp							"	4s
80	BIAS(4)			05 44					0
81	comp							"	4
82	BD+16 2222	11 04 29	16 05 39	05 47 45					1452
83	comp							"	5
84/94	flats x 11							Tung ND 4	
95	BIAS(4)			06 18					0

Header sug(B) edit to 12/4 Tn

Spectr. Temp

Focus.....

Spectr. Temp

Exp Mtr	S
1000V	
270	
61	
395	
2000	
200	

Spectr. Temp. −100.3°C Dome Temp./Hum. −3.8°C/82% Transparency Conditions ... partly cloudy ... 16.

Focus ... 6.95

Spectr. Temp. ... Dome Temp./Hum. −4.0°C 83% 4/00 050 1024 4 / CCDMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V				CASS CCD	1800/mm 47.7s	30µ	5300	5			
220	1"-2"	11.8	K8					6	Vys 597B	SBIG usal OK, middle position; Brightest of Diagonal 3	
								7		Some cloud	
								1			
61		~14	K like					8	Vys 597C	SBIG usal Faintest, most NW of 3	
								9		Too Faint Really to reliably do	
295	1"-2"	~11.2	M like					10	Vys 597A		
								11			
								11			
2000	1"-2"	7.48	M2					12	Mag silvel		
								13			
								1			
								13			
200	1"-2"	11.5	M0					14	Vys 599		
								15			
								2		FLATS 12.3K	
								1			

17 Pgit1 Fri/Sat

Date 1997 Dec 5/6... Observers ..Mn../..Lq/..Tn.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc507 96/97	Inboard /	OUT BOARD	HARTMANN					Feat ND4	4/6
98	Comp							"	4
99	HD217675	225719	+41 47 19	183413					60
cc50800	comp							"	4
01	BIAS(4)			1840					
02	Comp							"	4
03	VES735	02 20 07 2000	61 07 03	184500					1800
04	Comp							"	4
05	VES735	"	"	191707					1800
06	Comp							"	4
07	BIAS(4)			1948					0
08	VES735	"	"	195117					1800
09	comp							"	4
10	VES735	"	"	202330					1855
11	comp							"	4
12	BIAS(4)			2056					0

CCD Spectr. Temp
Focus.....
Spectr. Temp

Tip Mtr
200V
HV=1320
760
1850
755
760

CCD Spectr. Temp. −99.5°C Dome Temp./Hum. +0.9°C 68.5%H Transparency Conditions Partial Clearing 16

Focus 6.88 Both CCD Dewar and secondary mirror reinstalled today. Dewar Pumped down.

Spectr. Temp. ..... Dome Temp./Hum. ..... CD 395 0 50 1024 4 1 CCDFm

Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD Tyrating ⇒	1800 l/mm 56.35	306u	6600Å	3/4	focus test		
								5		Strongest Line Saturated To Bring others up!	
8K		3.62	B6 II Type A2p					6	normalization star too		
								7			
								1			
		120	60					8			
HV=1320 1760	2"-3"	12	0					9	Mn program	(Hd double Em ≈ 20 Mg obscure continuum.)	
								10			
1850		"	"					11			
								12			
								1			
1755	1-3"	"	"					13			
								14			
1760	2"-4"	"	"					15			
								16			
								1			

1/ pg#2 FRI/SAT

Date 1997 Dec 5/6 Observers [illegible]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
P ECG0813	Comp							FeAr NO 4	4
cc 14	HD204418	03 12 00	49 43 47	21 01 30					260
15	comp							4	4,
16/22	FLATS x 7							THRU NDS	6s
cc 23	BIAS(4)			21 17					0
12	BIAS(4)			[illegible]					

Spectr. Temp. −100.1°C Dome Temp./Hum. −0.6°C/64% Transparency Conditions mostly cloudy 20

Focus 6,88

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Rig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1005V				CASS CCD	1800 l/mm 56.35	306μ	6600	17			
10,2K	2"-4"	5.03	BSV					18	Telluric Std		
								19			
								2		Test Flat showed Apparent Dirt on Slit at Row 22	
								1			

2\ SAT/SUN

Date 1997 Dec 13/14 Observers [Rm]/Lu/Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc508 24/25	Inboard/Outboard Hurtmann							Fan ND4	A/6
26	BIAS(4)			2305					
27	Comp							N	4
28	HD 30782	4 41 06	+36 32 00	23 15 18					576
29	Comp							"	4
30	Comp							"	4
31	HD 22484	3 31 46	00 05 04	23 30 49					300
32	Comp							"	4
33	Comp							"	4
34	HD 44990	06 19 49	07 08 25	23 40 32					W75
35	Comp							"	4
36	BIAS(4)			0002					0
37	Comp							"	4
38	HD 62509	07 39 12	+28 16 04	00 05 42					36
39/45	Comp flats x 7							Fan ND 5	4 6
46	BIAS(4)			0012.					0

CCD Spectr. Temp. ..... Focus ..... 6 Spectr. Temp. .....

Exp. Mtr	Se
1000V	
1040	
1780	
3650	
1175	

CCD
Spectr. Temp. -100.4°C Dome Temp./Hum. -00.1 77.8% Transparency Conditions ... PARTIAL clearing 22

Focus 6.86

Spectr. Temp. ..... Dome Temp./Hum. -00.5 81.5% 395 CCDFINT 0 50 10 24 41 MAX ADU

CCD

Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V				CASSCCD	1800/m 5493	306	6400	3/4	focus test		
								1			
								5			
2040	4"	8	F-G					6	Rm progam	High PRIORITY Then cloudy	
								7			
								~~7~~			
3780	4"	4.28	F9 IV-V					8	std lvl	very cloudy	
								9			
			-					9			
3650	4"	7	F-G					10			254
								11	Rm pgm	through clouds.	
								1			
								11			
11K		1.14	K0 III					13	std lvl		11K
								13 2			11K
								1			

Mpg II

sun/mon

Date 1997 Dec 14/15 Observers Kr. n. / Tn.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5084/49	Inboard / outBoard		Hartmann					FeAr ND4	4/6
1197	HD218525	23 03 35.7	+44 01 14					4x 2x	67mm 133mm
CC5050	BIAS(4)			18 15 38					0
51	Comp	Telescope position							4
52	SKY	01 17 23	+61 02 30	18 18 47					600
53	Comp							"	4.
54	Comp							"	45
55	HD 203064	21 14 43	+43 31 30	18 46 56					192
56	Comp								
CG81157/63	FLATS x 7							TUNG ND5	45
64	BIAS(4)			18 55					
CC5065/66	Inb / outBoard	Hartmann						FeAr ND4	4/6
67	Comp							"	4
68	HD203 64	21 1443	+43 31 30	19 1018					372
69	" Comp	"	"						60
70	Comp							"	4

CCD
Spectr. Temp. ...-100.6...°C Dome Temp./Hum. ...-9.6...°C ...62% Transparency Conditions ...increasing cloud 24

Focus ....7.08.....

90 cgain

Spectr. Temp. ..... Dome Temp./Hum. ..... C>

420 0 50 1024 4 1 CCD~~Plot~~

Exp. Mtr.	Seeing	~~Pg~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1320V					0600C 7704	306u	5140A	3/4			
	poor	634	AO		Above 306u Slit				Seeing test	02 -000025 ~~xs~~ 00 00 00	
								1			
								~~6~~ 7			
774									Sky	Tel E-W + Side	
								~~8~~	~~Sky~~	cloudy	
								8			
40K		4.99	08					9	~~Test~~	08 V e?	5.8K
								10			
								2			
					1800u 5635		~~6600A~~	~~1~~		395 0 50 1024 91 ~~Comment~~	
-5.7°C		6.95	set		↓		6600A	3/4	focus	↓ ↓ ↓	
								11			
8K++		4.99	08					12			~4K
5.4K								13			
~~5.4K~~								14			

P42 Sun/Mon

Date 1997 Dec 14/15 Observers KTH LTs

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5087 1	HD20364	21 14 43	+43 31 30	19 41 46	ed, +V				237
72	Comp							Fe Ar ND4	4
73 74	BIAS (4) Comp							"	4
75	HD199579	20 53 03	+44 32 24	19 57 26				"	967
76	Comp							"	4
77	HD199579	"	"	20 16 16					282
78	Comp							"	4
79	Comp							"	4
80	HD217675	22 57 19	+41 47 19	20 45 17					122
81	Comp							"	4
82/88	FLATS x 7							TUNG ND5	6s
89	Comp							Fe Ar ND4	4s
90	HD39760	BIAS(4)		02 01					0

Spectr. Temp. ..... Dome Temp./Hum. −6.2°C 68.6% Transparency Conditions . Part. Cloudy 25

Focus .... 6.95 .....

Spectr. Temp. −100.5°C ... Dome Temp./Hum. −4.0°C 67.5% 395 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10000 8.6K		4.99	08	CASS CCD	1800 l/m 56.35	306μ	6600Å	15	By accident Readout in 12 edited back		
								16			
								17			
6.2K	4"	5.96	06Ve					18		Cloudy	
								19			
3.4K	5"							20			
								21			
								22			
13K		3.62	B6III pe + A2p					23			6.3K
								24			
								2			
								26		Tel still Reversed.	
								1		Δα +00 00 11	
										ΔS +00 01 06	

VX pg#1 Mon/Tues

Date 1997 Dec 15/16 Observers Mn./Tn.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc50891	Comp							FEAr ND4	4
92	HD217675	22 57 19	41 47 19	17 29 11					78
93	comp							"	4
cc50894	BIAS (4)			17 34					0
95	Comp							"	4
96	VES 735	02 2007 (2000)	+61 07 03	17 48 10					1535
97	Comp							"	4
98/902	FLATS x 5							TUNG MOS	6s
903	BIAS (4)			18 24					0
cc50904/05	Inb/out							FEAr ND4	4/6
06	Comp							"	4s
07	VES 735	02 2007	+61 07 03	18 41 57					2407
08	Comp							"	4s
09	VES 735	"	"	19 26 07					983
10	~~Comp~~ Comp			19 42 53					2308
11	Comp								

CCD Spectr. Temp. −100.3 °C Dome Temp./Hum. +3.6°C 56624 Transparency Conditions ....Fine.... 28

Focus ....6.95.... 7.03 for 600C grating 90 c gain

Spectr. Temp. .... Dome Temp./Hum. .... c) 395 0 50 1024 4 1 CCDFmt

Comparison Filter	Exp	Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4	1000V				CHSS CCD	1800 l/m 5635	306A	6600Å	5			5
	78	12K		3.62	B6III	pe + A2p				6	Normalization STAR, Also done last night.		5.7k
	4									7			
	0									1			
	4	1320V								8			
	85	1752	4"8	1.28	09					9	Sky still bright a bit	Δλ+00 00 27 @ 3h3E Δλ+00 00 06	
	4									10			
	6s									2			
	0									1			
	4	+2.9°C	7.03	set			0600C 27.04	306	5140Å	3/4	focus	445 0 50 1024 4 1	
	4									11			
	3	2.6K	4"8	1.28	09					12			
	4									13			
	9	1.2K								14		Auto guider used, But it guided off in RA too much.	
	8	2.8K								15			
										16			

1997 Mon/Tues

Date ..1997..Dec.15/16.. Observers ..Mo./I.T.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc50912	B/HS(4)			2022					0
13/18	FLATS x 6							TUNG ND 5	4
19	Comp							Red ND 4	4
20	VES735	02 20 07	+61 07 03	20 32 46					2231
21	Comp	"	"					"	4s
22	VES735	"	"	21 12 33					
23	Comp							"	4s
24	B/HS(4)			21 51 55					0
25	VES735	"	"	21 53 17					2213
26	Comp							"	4s
27	VES735	"	"	22 32 16					2229
28	Comp							"	4s
29	B/HS(4)			23 11					0
30	VES735	"	"	23 12 24					22
31	Comp								4s

CCD
Spectr. Temp. -100.2C Dome Temp./Hum. +2.2°C 64.4% 11 Transparency Conditions ... Fine ... 30

Focus ... 7.0.3 ...

Spectr. Temp. ... Dome Temp./Hum. ... cd 445 0 50 1024 4 1 CCDFmt

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0	1320✓				CASCCD 1 grating	0600C 27.04	306u	5140A	1			
4									2			12K
4						*27.03			17	*	Grating angle change To get sky line	
22½	2.8		128	09					18		at Red edge out.	
6									19			
	2.8								20			
4									21			
0									1			
22½	2.8K								22			
4									23			
22½	2.8	3"5"							24			
4									25			
0									1			
4	2.7								26			
4									27			

Mfg #3 Mon/Tues

Date 1947 Dec 15/16. Observers Mon/Tues

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5093 2	VES735	02 2007 2000	+61 0703	23 51 45					270
33	Comp							Feather ND4	45
34	VES735	"	"	00 30 21					229
35	Comp							"	4
36	BiHS (4)			01 16					0
37/42	FLATS x6							Jung ND3	4
43 44	Comp	Two written at this		FRAME				Feather ND4	45
45 45	Ves735	02 2007	+61 0703	01 28 20					2225
46 46	Comp							Feather ND4	4
47 47	VES735 ✓	02h 2007	+61 0703	02h 11 16					3447
48 48	Comp ✓							"	4
49 49	BiHS (4)			02 54					0
50 50	VES735	"	"	02 55					3200
51 51	Comp							"	4
52 52	VES735			03 34 04					804
53 53	Comp								

Spectr. Tem
Focus ....
Spectr. Tem

Exp Mtr
1320 V
2.6
2.75K
Clear Tes
3.9K
3.4K
3.2K
19 4

Spectr. Temp. ..... Dome Temp./Hum. +16°C 67%H Transparency Conditions ... Fine – some cloud ...

Focus ... 7.03 .....

Spectr. Temp. ..... Dome Temp./Hum. +1.0°C 71.5%H

Exp. Mtr.	Seeing	Ptg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
13:20 V 2.6	4"6"	12.8	08	CASS CCD	0600C 27.03	306u	5140A	28			
								29			
2.75K								6			
								7			
								1			
								2		Top up done 8ci w test	
(Now Telescope East Side)					600C 27.015 changed again			8ci	test on west side.	of 27.015	
2.9 k								10ci		~60 ADU Above Sky	
								11ci			
3.4 k								12ci			
								13			
								1			
32K								14		airmass 1.75, prom seeing	
								15			
29	4"-7"							18		airmass 1.90	
								19			

pg #4 Mon/Tues

Date 1997 Dec 15/16 Observers Mn./Tn.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC50954	BIAS(4)			0405					0
55	Comp							Feb HD4	4
56	HD53975	070157	-12 14 24	041741					534
57	HD53975	"	"	042655					516
58	Comp							"	4
59	Comp							"	4
60	HD54662	070436	-10 11 11	044046					845
61	Comp							"	4
62	Comp							"	4
63	HD48279	06 37 30	+01 49 00	050056					244
64	Comp							"	4
65	HD48279	"	"	051315					2035
66	Comp							"	4
67	Comp							"	4
68	HD48099	06 36 57	+67 6 75	055150					1111
69	Comp								

Spectr. Tem
Focus
Spectr. Tem

Exp. Mir

Spectr. Temp. ..... Dome Temp./Hum. +1.2°C 70%H Transparency Conditions ... thin cloud ... 34

Focus ... 7.03 ...

Spectr. Temp. ..... Dome Temp./Hum. +1.0°C 69.1%H 445 0 50 102441 CCDFLET

Exp. Mtr.	Seeing	Pig Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V				CASS CCD	0600c 27.015	1	5140A	1			
								19		Tel still East side	
25A V poor	7" 15	6.47	07.5	V				20	0° std	15α -00 00 17 15δ -00 01 15	36k
25k								21			-
								22			
								23			
50k	8"	6.21	06.5	V				24	0° std	airmass 2.6	8k
								25			
		7.86						25			
23k	6"	7.86	08	V				26			
								27			
27k	8" 15	7.86	08	V				28		15α -00 00 21 15δ -00 01 15	
								29			
								5		Close to Full moon	
50k	15"	6.36	07	V				6			
								7			

Mt Dyn 5 Pyd 5 Mon/Tues

Date 1997 Dec 15/16 Observers Ma./Tu.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
cc50970	BIAS(4)			061212					0
71	Comp							Cam NDF	4
72	HD46202	06 2654	+50300	061722					368
73	HD46202	"	"	062435					
74	Comp							"	4s
75	Comp							"	4s
76	HD87901	10 0303	+12 2722	064058					1
77	"	"	"	064232					18s
78	Comp								4
79/84	FLATS x6							TWIL NDF 5	4s
85	BIAS(4)			0647					
	Comp								

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions OK 3c

Focus 7.03

Spectr. Temp. ..... Dome Temp./Hum. ..... cz

Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
13200					0600C 27.015	306u	5140A	1			
								8			
3.3K	1.5	8.19	09 V					9		The SE of PAIR	
								10		1" separation	
								11			
1000								11			
8K		4.35						12	Telluric Std		
10K								13			
								14			
								3			

Pg #1 Tues 1wal

Date ...1997 Dec 16/17... Observers .Kim/Jon.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC509 86/87	Inboard/Out Board							FeAr NO4	4/6
88	BIAS(4)			1714					0
89	Comp							FeAr NO4	4
90	HD176745	225719	+414719	172106					30
91	Comp							"	45
92	Comp							"	4
93	HD89965	012318	+594400	172957					
94	Comp							"	4
95	Comp							"	4
96	VES 735	02 2007 2000	+610703	174539					2200
97	Comp							"	4
98	BIAS(4)			1823					0
99	VES 735	"	"	182456					2200
51 000	Comp								4.
01	VES 735	"	"	190408					220
02	Comp								

Spectr. Temp.
Focus.....
Spectr. Temp.

Exp Mtr	Se
1060V	
5K	
44K	
1520V	
26K	
2370	
2530	

Spectr. Temp. CCD −100.2 °C Dome Temp./Hum. +5.0°C 59%H Transparency Conditions . mostly clear 36

Focus 7.03

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1060V				C455 000	600ln 27.015	30u	5140A	3/4			
								1			
								5			
5K		3.62	B6	Type+A2p				6			12K
								7			
								7			
44K	3"	7.28	B0.5	V				8			10K
								9			10K
1320V								9			
2.6K	2-3'	12.8	09					10		180A04 max clear sky	
								11			
								1			
2370	2"							12			
								13			
9530	1-3"							14		thin cloud	
								15			

29 pgm 2 Tues/Wed

Date 1997 Feb 6/11/7 Observers K.S.N./T.M.

Emulsion Batches:
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Plate No.	Object	R.A. 1900 2000	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5003	VES735	02 2007	+610703	194402					274
04	Comp							Cont ND4	4
05	BIAS (4)			2025					0
06	VES735	"	"	202604					2200
07	Comp							"	4
08	Comp							"	4
09	HD24760	035108	+394316	211055					32
10	HD24760B	"	"	211235					28
11	Comp							"	4
12	Comp							"	4
13	HD28446	042406	+534137	213310					276
14	Comp								4
15	BIAS (4)			213919					0
16	Comp							"	4
17	HD46202	062654	+050300	214523					1153
18	Comp							"	4

Spectr. Temp
Focus ... 7...
Spectr. Temp

Exp Mtr 7300

31K

39K

60

37K

34K

Exp meter 1000 V

Spectr. Temp. ..... Dome Temp./Hum. +3.2°C 64%H Transparency Conditions .... Hazy - thinly cloudy

Focus ... 7.03 .....

Spectr. Temp. ..... Dome Temp./Hum. +2.8°C 66%H

CC

+45 0 50 1024 4 1 CCDfast

Comparison Filter Exc	Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
27H	3.1K	1-3"	128	09	CASS CCD	0600C 27015	306u	5140Å	16		some cloud	
4									17			
0									1			
2200	3.5K								16			
4									18			
4	Cap neck 1000 V								18			
32	5.9K			B05 III					19			
28	660								20		finder comparison to NORTH	
4									21			
4									21			
276	3.9K	1-2"	578	B0 III					22		SE one	POOR
4									23			
0									1			
4									23			
152	3.4K								24			
4									25			

W/pyr#3

Emulsion Batches:

Date 1991 Dec 16/17 Observers K.P.M. L.T.S.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC51019	HD46202	06 26 54	+050300	221246					1872
20	Comp							Feb NDA	4s
21	Comp							"	"
22	HD44743	06 18 18	+17 54 22	225052					33
23	Comp							"	4
24/30	FLATS 7							TUNG NDS	4s
31	BIAS (4)			2257					0
32	Comp							"	4
33	HD 39680	The SW one		230451					120
34	Comp							"	4
CC51035	HD39680	05 49 00	+13 49 00	233820					
36	Comp							"	4
CC81202/06	HD40722	5 55 40	+14 32 39				"	4 x	6f
07/08	"						"	2 x	133
CC51037	BIAS (4)			0012					0

Spectr. Temp. ..... Dome Temp./Hum. 12.5° C 67% H Transparency Conditions Part Cloudy 42

Focus 7.03

Spectr. Temp. ..... Dome Temp./Hum. ..... C) Pearson Bar Prosmee Rising at (a23Est W SW 11 Kms/hr.

Comparison Filter	Exp	Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	15	10000 2.6K	2"	8.2	09	CASS CCD	0660C 27.015	306	5140?	26		The Right one used	
	45									27			
	"									27			
	33	5.9K		1.9	B1 II/III					28			44K
	4									29			
	45									2			42K
	10									1			
	4									5			
	120	2.4K								6			
	4									7		The NW one of Pair	
		3.3K	3"	.	O?e					8		Oe star from IAU Symp 70 p139 list - cf VES735	
	9									9			
	45					Above		306u	Slit		Seeing		
	132												
	0									1			

43 pg #4 Tues/Wed

Date 1947 Dec 16/17 Observers [illegible]

Emulsion Batches: .....

Spectr. Temp Focus..... Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC5103839	Inboard/Out Board							Feild NDS	4/3	2220
40	Comp							"	4	
41	HD 36395	052618	-034100	015626					581	575
42	Comp							"	4	
43	BIAS(4)			0207					0	
44	Comp							"	4s	
45	BD-02 3600*	045313 2000	-034118	022025					1038	475
46	Comp							"	4s	
47	Comp VES735 2000			~~023415~~				Feild N/D4	4s	13,20V
48	~~BD-02 3600~~	022007	+610703	~~032516~~					1881	~~453~~ 553K
49	Comp							"	4s	
50	VES735	"	"	035731						427
51	Comp							"	4	
52	BIAS(4)			0418					0	
53/59	FLATS x 7							FLAT NDJ	6s	

Spectr. Temp. ..... Dome Temp./Hum. +2.0°C 75% Transparency Conditions .... Part cloudy ... 44

Focus ..... 6.88 .....

Spectr. Temp. ..... Dome Temp./Hum. +1.9°C 73% 395 0 50 1024 4 1 CCDFAST

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				T grating	~~1800u~~ ~~47.75~~ 47.75	30u	5300Å	3/4	focus test		
								5			
575	3"	7.95	M1					6	May, Stdtest		
								7			
								8			
								9			
								10			
435	2¾"	10.54	M0	Looks Like K type Note, Re wrong stun. To SWO BD-02300				9	Hiv pgm	About 30° From Moon, inclined 02-00 00 01 15-00 03 45	
								10	Too cloudy now		
1320V					1800u 5635	30u	6600Å	3/4 5		clear in NW	
~~447~~ 203K	3"	~~12.8~~ 12.8	~~09~~ ~~10~~ 09					~~12~~ 6	Kyp 560	~~02 +00 00 02~~ ~~16 -00 00 27~~	
								7			
1427								8			
								9			
								1			
								2			

LZK

US Pg #5

Date 1997 Oct 16/17 Observers [HW.J] / Kim / Tim

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
C51060	Comp							Pale ND4	4s
61	HD 87901	100303	+12 27 22	~~+00~~ 2756					~~20~~
62	Comp							"	4s
63	Comp							~~Pale~~ ND5	4
64	BD-02 3000	095313 (3000)	-03 41 10	043624					90
~~*~~ 65	Comp							"	4
66	BD-02 3000	"	"	045739					90
* 67	Comp	(error)	Blank					"	4
68	BD-02 3000	"	"	051017					90
69	Comp							"	4
70	BIAS (4)			0527					0
71	Comp							"	4
72	BD+01 2447	10 23 49	+01 21 36	053051					~~67~~
73	comp							"	4
74	Comp							"	4

Spectr. Temp
Focus.....
Spectr. Temp

Exp Mir	
~~2030~~	
~~11K~~	
370	
446	
372	
20	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Fine 46

Focus ..... 688 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

395 0 50 1074 41 CCOFaint

Exp. Mtr.	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~0000~~				CASS	1800/m 56.35	306	6600Å	10			
11K								11	Telluric Std.		5K
								12			
					1800/m 4775	306	5300Å	5		OK	5.7K
370	4"	10.54	MO					6	Vys 560	Δλ = 00 00 04 Δδ = 00 00 45	
								7		Blank	
340								8	"		
		Did FeAr with mirror for FeNe						9	Nothing there.		
372								10			
								11	✓	OK	
								1			
								~~12~~			
820		9.65	M2					12	Marcy Std Vel		
								13			
								14			

W7 pg#6

Date 1947 Dec 16/17 Observers [Vys]/Tu/Kan

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5107S	HD95735	10 57 54	+36 38 00	05 50 39					240
76	Comp							TuNe NO5	4
77	Comp							4	4
78	Vys 613	11 28 10	+02 51 02	06 09 16					180
79	Comp								4
80	BIAS (4)			06 41					0
81/87	FLATS x 7							TUNG NO 5	6s

Spectr. Temp
Focus
Spectr. Temp

Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .... Fine ..... 48.

Focus ..... 6-88 .....

CCD
Spectr. Temp. ..-100.3°C.. Dome Temp./Hum. 0°C ... 80% H

Exp. Mtr.	Seeing	Ptg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 2.1K	2"	748	M2	C 455 CCD	1800 4775°	306	5300A	15	Many Stds	UCL	
								16			
								19			
373	2"4"	M2	M0					20	Vys 613	Ac-21513-410 Good one	
								21			
								1			
								2			1.4K

Yerkes #1 Sun/Moon

Date ..1947 Dec 21/22.. Observers ..Hix/Tuttle/Mike.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Ceiso 81/82	Inboard / Out Board							ThAr	4/4
83	Comp								4
84	HD219586	231146	+70 2034	18 5502					999
85	Comp								4
86	BIAS(4)			1916					0
87	HD219586			19 1928					185
88	Comp							ThAr	4
89	HD219586			195245					1813
90	Comp							"	4
91	BIAS(4)			2025					0
92	HD 219586			20:29:26					1200
93	Comp							"	4
94	HD219586			20 51 54					1800
95	Comp							"	4
96	HD 219586			21:24:47					1909

CCD Spectr. Temp. −100.2°C ... Dome Temp./Hum. +1°C 61% H Transparency Conditions . Fine ... 50

Focus .220 ... 90C gain

Spectr. Temp. ... Dome Temp./Hum. ... CL 0 0 256 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				~~600 l/mm~~ Edlelo	W H	100u 400u	4508A	3/4	focus test	100u W = .261 400u H = .225	
1320V				18.00	600 l/mm OM585			5	Tel focus @ 2314		V3K
Nope		5.7M	FO					6			
								~~7~~			
								1			
0		5.7M	FO					7			
								3			
—	2.3'	5.7M	FO					2			
								3			
								1			
0		5.7M	FO					~~4~~		edit	
								4		Both! edit ✓	
0	3.5'							5			
								3			
0								6			

Gl Pg#2 Sun/Mon

Emulsion Batches:

Date 1997 Dec 21/22 Observers Hjc/Tnl (mKi helping)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
ce15097	Comp							Th 4r	4s
98	HD219586	23 11 46	+70 20 34	21:59:50					1840
99	Comp							"	4
ce15100	BIAS (4)			22 33					0
101	HD219586	"	"	223454					1802
102	Comp							"	4
103	HD219586	"	"	230829					1806
104	Comp							"	4
105	HD219586	"	"	234200					
106	Comp							"	4
107	BIAS (4)			00 16					0
108	HD219586	"	"	00 1954					1908
109	Comp							"	4
110	HD219586	"	"	00 5822					1762
111	Comp								4
112	BIAS (4)			0127					0

Spectr. Temp. ..... Dome Temp./Hum. −5.3°C 66%H Transparency Conditions ..Fine...slight Haze.....52

Focus .....220.....

Spectr. Temp. ..... Dome Temp./Hum. .....cj

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ × Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
13:20V				1800	0600 .4585	100μ 400H	4508A	3			
—	4°	57	FO					2			
								3		middle Bright Line max 8.3K	
								1			
0								2			
								3			
0								4			
								3			
0								5		some cloud	
								3			
								1			
0								2			
								3			
0								4		200ASU max Nice until end cloud at end	
								3			
								1			

PyH3 Sun/Mon

Date 1997 Dec 21/22 Observers H.J.x/I.Tn./Inki

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CE15113	HD219586	231146	+702034	013117					1800
14	Comp							ThA	4
15	HD219586			020425					1769
16	Comp							"	4
17	BIAS (4)			0236					0
18	HD219586			024418					1829
19	Comp							"	4
20	Comp							"	4
21	HD34029	050918	+455347	033033					994
22	Comp							"	4
23	BIAS (4)			0340					0
24/36	FLHTS x 13			(Telescope Stall East Side)		8 hrs W	+70°	ThAr	25
	Dec 22/23	Echelle ThA stability test using NMTST.				BAT 50	just above platform	ThAr	
CE5138 → 189	on	Batch at 0 hr L & Platform.						ThAr	23

Spectr. Temp. ..... Dome Temp./Hum. -6.8°C 66% Transparency Conditions . Part Cloudy 54

Focus ... 1220 .....

Spectr. Temp. ..... Dome Temp./Hum. -7.0°C 64.5% A

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0	5"	517	F0	Echelle 18.00	0600 4585	100 400	4508	2			
								3		(middle Bright Line mH× 9.5 K)	
0								7			
								3			
-		B						1			
0	4"	0.85	G6 III +G2 III					2		some cloud	
								3			
1320V								3			mH× ~5K
635	6"	B 0.85	G6 IV +G2 III			400mm: .225 set		2	Capella for test purposes		
								3			
								1			
						600mH: .205		2			1 13K
		CE 5137 is B/4s(4)						1 c:	Bas-		

Night 1 SAT/Sun

Date 1997 Dec 27/28 Observers Hjx/ITn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
ce 151 37/38	Inboard / Out Board							ThAr	2/2	120V
39	BIAS(4)								0	
40	Comp							ThAr	4	
41	HD 219586	23 1 46 (1900)	+70 20 34	18 31 26					1724	0
42	Comp							ThAr	4	
43	BIAS(4)			1904					0	
44	BIAS(4)			2132					0	
45	Comp							"	4	
46	HD 219586	"	"	22 32 38					1802	0
47	Comp							"	4	
48	HD 219586	"	"	23 07 30					1802	0
49	Comp							"	4	
50	BIAS(4)			2339					0	
51	HD 219586			23 41 15					2005	
52	Comp								4	
53	HD 219586			00 16 05					1829	

CCD Spectr. Temp. -101.3°C Dome Temp./Hum. -0.6°C 62%H Transparency Conditions ..... Fine - Part Cloudy

Focus ... .224 90C gain

Spectr. Temp. ..... Dome Temp./Hum. .....

100u slit width set → .262
400u slit Height " → .225

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ ✕ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V				Echelle 18:00	0600 l/mm .4585	100u 400u	4508H	1/2	focus test	@ 0 0,128 1024 8 / CCD mm	
								1		@ 0 256 1024 4 / CCD mm	
		mid strong line @ 9k ADU						3		@ 01 26 W Encoder Errors -00 01 14 Tel East side = 01 00 → 200 ADU above sky ground	
0	2.3"	5.7	F0					4			
								5		Some Cloud at end	
								1			
								1			
								3			
0								2		@ 05 28 West Δα -00 01 27 Δδ -00 02 27	
(								3			
0								5	max ~130 ADU above sky background		
								3			
								1		@ 06 44 W	
								2		Δα -00 01 18 Δδ -00 02 30	
								3			
	4"							6			

Pg02 SAT/Sun

Date ..1997. Dec 27/28.. Observers .Hjx./.Tn.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
54	Comp							ThAr	4s	
55	BIAS(4)			00 48					0	
CC15156	HD219586	23 11 46	+70 20 34	00 49 19					184 0	0
57	Comp							ThAr	4	
58	HD219586	"	"	01 21 34					184	0
59	Comp							ThAr	4s	
60	~~HD219586~~ BIAS(4)	—	—	~~02 06 47~~ ~~01 53 57~~					0 ~~600~~	0
61/80	~~Comp~~ FLATS x 20							TUNG	25s	

Spectr. Temp
Focus ...
Spectr. Temp

Spectr. Temp. ..... Dome Temp./Hum. -4.4°C 71.4% Transparency Conditions Slightly hazy 58

Focus 1224

Spectr. Temp. -100.3°C Dome Temp./Hum. -4.8°C 71.7% CD

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ x Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1320V				1800	0600 l/mm 14585	100u W 100u H	4508A	3			
								1			
0	3"-4"	5.7	FO					2	N Radial pulsation program		
								3			
0								7		3100 nm max Cloud at end Have backgrounds	
								3			
0								~~5~~ 1		Too cloudy	
						100u 600u	.205	2			13K

Eq pg#1 Sun/Mon

Date ...1997 Dec 28/29 Observers ..H.J.x.I.T.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
81-82	Inboard/outboard							Thar	2/2	1320
CE15183	BIAS(4)			1736					0	
84	Comp			~~1736~~				"	4	
85	HD219586	23 11 46	70°20 34	173918					~~840~~	0
86	Comp							"	4	
87	HD219586	"	"	180304					1201	0
88	HD219586	"	"	182336					1215	0
89	Comp							"	4	
90	BIAS(4)			1845					0	
91	HD219586			184727					1203	0
92	HD219586			190826					1200	0
93	Comp							"	4	
94	HD219586			192957					1491	0
95	Comp								4	
96	BIAS(4)			1959					0	

Spectr. Temp

Focus.....

Spectr. Temp

Spectr. Temp. ..... Dome Temp./Hum. -2.5°C 64%H Transparency Conditions .. Hazy - part cloudy (6)

Focus .....224 unchanged

Spectr. Temp. ..... Dome Temp./Hum. -3.0°C 66%H (7)

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2½	1320				18.00	0600h .4585	100u W 400u H	4508Å	1/2	focus test	CCD FAST 0 0 128 1024 8 1	
10									1		0 0 256 1024 4 1	
4						Most likely 600u for stellar 600u=205			3		Telescope East Side @ 00 38 00 DA −00 01 02 DS −00 00 45	
8½	0	1-2"	5.7	F0		[Eye mistake did			2			
4						stellar Slit H = 600u			3	5th From Top	(Cols 108-122) Range)	
12½	0	1-2"							4	440 ADU MAX above Background	4496 → 4525 Å)	
19½	0								5		Next Red center of 4544 Å	
4									3		center 4578 not + Reliable	
0									1			
12½	0								2			
12½	0	1-2"							6		~ 300 ADU MAX above background	
4									3			
14½	0	1"							2		thick cloud	
4									3		9.6k for starg control comp line	
2									1			

61 pg #7 Sun/mon

Date 1997 Dec 28/29 Observers Hjx/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CEIST 97/206	FLATS x 10							TUNG	25
07	Comp								
08	HD 219586	231146	+70 2034	20 2557					165T
09	Comp								4
210	BIAS(4)			2055					0
211/220	FLATS x 10					02 COW @ +57°		TUNG	25s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Cloudy ... 2

Focus ... .224 .....

Spectr. Temp. ..... Dome Temp./Hum. ... -2.4°C 71% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle 18.00	0600 .4585	~~400u H~~ *		2		Slit H not changed for these Flats	
						600u = .205		3			
0						"		2		very cloudy	
						"		3			
						4		1			
						700u H = ~~.225~~ .195 set		7		Telescope west side	

63 pg #1 sun/moon

Emulsion Batches:

Date 1998 JAN 11/12 Observers HJX/JTA

CCD Spectr. Temp Focus Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CCD152 21/22	In 6' OUTBOARD							THA	2/2	
23	BIAS(4)								0	
24	Comp							"	4s	
25	HD 219586	231146	+702034	182310					1804	N/A
26	Comp							"	4	
27	HD219586	"	"	185438					1800	"
28	Comp							"	4	
29	BIAS(4)			192557					0	
30	HD219586	"	"	192913					1800	"
31	Comp							"	4	
32	HD219586	"	"	200114					1800	"
33	Comp							"	4s	
34	HD219586	"	"	203428					1800	"
35	Comp							"	4s	
36	BIAS(4)			210533					0	

CCD
Spectr. Temp. −100.5°C Dome Temp./Hum. −66°C 53% RH Transparency Conditions Clearing by sundown 4

Focus .224

Spectr. Temp. ..... Dome Temp./Hum. −7.7°C 58% RH

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst. Echelle	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks COMMENT	Quality
				18.00	0600 14585	100 μm 700 μH	4508Å	1/2		0 0 128 1024 8 1	
						100 μW = 261 400 μH = 225		1		0 0 256 1024 4 1	
		~~57~~						3			
N/A	3"	57	FO					4		MAX ~220 ADU above background	
								3			
"								5			
								3			
								1			
"								2		~180 MAX ADU above background.	
								3			
"								6			
								3		Strong cont. / tilt MAX 8.75K ADU	
"								4		~150 400 ADU max above background.	
								3			
								1			

Spectra scanning

Date 1998 JAN 11/12 Observers Hix / Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE15237	HD219586	23h46	+70°34	21 05 06					1797
38	Comp							ThAr	4
39	HD219586	"	"	21 10 34					1803
40	Comp							"	4
41	HD219586	"	"	22 13 16					1800
42	Comp							"	4
43	BIAS(4)			22 46					0
44	HD219586	"	"	22 47 20					1809
45	Comp			?				"	4
46	HD219586			23:11:46					2040
47	Comp								4
48	HD219586			23:56:34					1803
49	Comp								4
50	BIAS(4)			00 40					0
51/70	FLATS x 20					8 28W	+70°		255

Spectr. Tem
Focus
Spectr. Tem
Exp. Mtr
N/A

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Some cloud CC

Focus ..... 224 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst. Echelle	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
179		N/A		37	FO	18.00	0600 H 14585	700u W 400u H	4508	2		~ 145 NOU max above Background	
4										3			
183										4			
4										3			
180										5			
4										3			
0										1		>> sy 1515.84 T	
183										2			
4										3			
2.4										4		~ 120 NOU max above background	
4										3			
183			3-5*							6		Part Cloudy (~ 60 NOU max above)	
4										3			
0										1		After complete Reboot	
183								700u W 500u H = .215		2		(CCD32 Hard Hung up) MAX 17 K	

67 Pt#3 Sunlmon

Date 1998 JAN 11/12 Observers HJK/TA

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cel52 71/72	Inbound loci Bound								1/1
73	Comp								1s
74	HD109387	122913	+70 2022	022202					61T
75	Comp								1s
76	HD109387			025230					68T
77	BIHS(4)			03096					0
78	HD109387	"	"	030805					601
79	"			031836					600
80	Comp								1s
81	HD109387			03:31:24					650
82	"			03:43:20					599
83	Comp								1s
84	HD109387			03:56:33					600
85	BIHS(4)			0407					0
86	HD109387			04:11:00					601
87	Comp								1

Spectr. Temp. ..... Dome Temp./Hum. -8.7°C 65%H Transparency Conditions Partly Cloudy ..... EX

Focus .....224.....

Spectr. Temp. ..... Dome Temp./Hum. -8.7°C 66.7%H (C)

Comparison Filter	Exp	Exp. Mtr.	Seeing	Pwr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1						E-Latte 19.50	0600 l/m .2860	100 µ 500 µ	W H 6570	1/2	focus test	Right in focus	
1s										3	Rebooted Again & Restarted.		9K
67			4"	383	B7					4.		Δλ +00 0040 & S −00 0003	24K
1s										3	(4 Hours from the east)	6630 − 6674 Å	
68										4.			
0										1			
69										2			
60										5			
1s										3			
650										6			
57										4			
1s										3			
600										5			
0										1			
69			2 1/2"							2			
1										3			

69#4 Sky/man

Date 1998 JAN 11/12 .... Observers H.J.M./J.T. .....

Emulsion Batches:

..... CCD Spectr. Temp

..... Focus 12

..... Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	S
ce15288	HD109387	122913	+702022	042403					909		
89	HD109387			04:39:38					602		
90	"			04 50 08					601		
91	Comp							THAr	5		
92	HD109387			050223					612		
93	"			051344					600		
94	"			05:2416					600		
95	Comp							THAr	5		
96	BIAS(4)			0535					0		
97	HD109387			053650					601		
98	"			05:47:22					622		
99	"			05:58:15					600		
300	Comp.								15		
01	HD109387			06:09:25					615		
02	"			6:20:09					600		

CCD
Spectr. Temp. -100?F ..... Dome Temp./Hum. ..... Transparency Conditions . mostly clear ..... TW

Focus ... .224 .....

Spectr. Temp. -100.0°C ..... Dome Temp./Hum. ..... C?

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	907			383	B7	19.50	0600h .2860		6570A	4		MAX ~ 7.5K ¢/Hz emission	
	602									5			
	601									6			
Hr	6									3			
	612									2			
	600									4			
	611									5			
Hr	6									3			
	0									1			
	601									2			
	622									6			
	621									4			
	5									3			
	615									5			
	610									6			

M P905 Sun/Mon

Date ..1998. JAN 11/12.... Observers H.J.K./I.T.S.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Ce15302	HD109387	12 29 13	+70 20 22	06 31 48					600
04	Comp							ThAr	1
05	BIAS(4)			06 42 48					0
06	HD109387	"	"	06 44 37					602
07	Comp.							"	15
08	Comp							"	6
09	HD87901	10 03 03	+12 27 22	07 00 35					132
10	"			07:03:31					181
11	Comp.								15
12	BIAS(4)			07 07					0
13/22	FLATS x10							TUNG	1.5

Spectr. Temp
Focus.....
Spectr. Temp

Exp. Mtr	
life	

Spectr. Temp. ..... Dome Temp./Hum. −9.1°C 70.7%H Transparency Conditions ..Fine..... M.

Focus .....224.....

Spectr. Temp. −101.2°C..... Dome Temp./Hum. −9.5°C 71.7%H

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
60	Tape	3"	3.83	B7	Echelle 1950	0600	100μ W 500μ H	6570	4			
1									3			
0									1			
202									2			
15									3			
6									3			
152									4	Telluric Std	≈ 6K max	
181									4			
6									3			
0									1			
15							100μ W 700μ H=.195		2		~ 10K	

Tues/Wed

Date 1998 Jun 13/14 Observers H.J.E. / T.S.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE153 23/24	In							ThAr	3/2
25	BIAS(4)			1815					
26	Comp							"	4s
27	HD 6860	01 04 08	+35 05 26	18 18 02					8Z
28	Comp							"	4s
29	Comp							"	4s
30	HD 219586	23 11 46	+70 20 34	18 26 32					18Z
31	Comp							"	4s
32	~~HD 6860~~ BIAS(4)			19 05 06					0
32/42	FLATS x10			22 17		4 25E	75°	TUNG	25
43/44	Jab (out board)							ThAr	2/2
45	BIAS(4)			00 24					0
46	Comp							ThAr	4
47	HD 109387	12 29 13	+70 20 22	00 33 46					603
48	"			00 44 19					606

CCD
Spectr. Temp. -101.2°C ... Dome Temp./Hum. -6.5°C 54% Transparency Conditions mostly clear 74

Focus .224 shift 0K

Spectr. Temp. ..... Dome Temp./Hum. -7.7°C 58% ~2

Comparison Filter Exc.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3/2	No point				Echelle 13.00	0600 l/mm .4585	200u H 400u H	4509Å	1/2		0 0 128 1024 81	
											0 0 256 1024 41	
4s			203 ~~Mono III~~						3		Strong middle line MAX 8K ~ 100400 Above Background	
82			203 Mono III						4		Tel westside Zenith	
4s									5			
4s									6		Tel Eastside	
184		2"4"	5:7	FO					2		Δ2 00 01 17 220400 Δ5 00 01 51 MAX above	
4s									3			
0									~~5~~ 1			
6 83							500u H	4509Å	2			12K
2/2	T=6.7°C	F=.219				0600 .2860	100u 500u	6570Å	1/2	focus test		
0						500u H=.215			1			
4 K									3			11K
63		4"	3:83	B7					2			
60									4			

Xy #2 T40s/wed

Date 1998 JAN 13/14 Observers H.J.K./T.A

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cels 349	HD109387	12 29 13	+70 20 22	00:55:19					604
50	Comp							TiA	15
51	HD109387			01 06 42					632
52	"			01 17 55					642
53	"			01 29 54					600
54	Comp								15
55	BIAS (4)								0
56	HD109387			01:43:21					600
57	"			01:53:51					607
58	"			02 04 24					643
59	Comp								1
60	HD109387	"	"	02 16 30					600
61	"			02:26:57					609
62	"			02:37:40					604
63	Comp								3
64	BIAS (4)			02 48					0

Spectr. Temp. ..... Dome Temp./Hum. -7.9°C 57%H Transparency Conditions .. PART CLOUR 76

Focus ....219.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		3.83		19.50	0600ℓ/m .2860	100μ 500μ	6570Å	5			
								3		MAX	8.5k
								6			
								4			
								5			
								3			
								1			
								2			
								6			
								4			
								3			
								5			
								2			
								7			
								3			
								1			

77 pgt 3 Tues/Wed

Date 1998 JAN 13/14 Observers Hjx/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce15365	HD109387	12 2913	+702022	025110					6155
66	"			03:01:54					600
67	"			03:12:28					600
68	Comp.								15
69	HD109387	"	"	032350					619
70	"			03:34:38					600
71	"			03:45:09					600
72	comp								15
73	Bias (4)			0356					0
74	HD109387			03:57:57					621
75	"			04:08:48					644
76	"			04 19 58					608
77	Comp								1s
78	HD109387			04 31 15					879
79	"			04:46:22					602

Spectr. Temp. ..... Dome Temp./Hum. -8.3°C 54.3%H Transparency Conditions ..Fine..... TB.

Focus ...e 219.....

Spectr. Temp. ..... Dome Temp./Hum. -8.7°C 63.7%A

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ × Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6145					19.50	0600ln 2860	50µ	6570P	2c:			
600									6			
600		3"-4"							4			
15									3			
619									5			
600									2			
600									7			
15									3			
0									1			
621									6			
644									4			
60									5			
15									3			
877									7			
602									4			

Mrk 744 Tues/Wed

Date 1998 JAN 13/14 Observers HJ + ITS

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce15380	Comp							T/A	1
81	Comp								1
82	HD87901	10 0303	+12 2722	050511					187
83	"			050904					144
84	Comp								1
85	BIAS(4)		~	0512					0
386/400	FLATS x 15							TUNG	15s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Clouds Snow 60

Focus ..... 219 .....

Spectr. Temp. ~~-10~~ -10.3°C ..... Dome Temp./Hum. -8.5°C 65%H

Exp. Mtr.	Seeing	P.E. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					060 Gln	400 4 600 4	6570 9	3			
								3			
	4"		B					5	Telluric Std (in cloud)		36K
								5			
								3			
								1			
								1			13K

do pg 1 Tues/Wed

Emulsion Batches: .....

Date ..1996. JAN. 20/21.. Observers ..Lu./..In...Service.. .....

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CCD Spectr. Temp

Focus.....

Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC510 88/89	Inboard/Outboard		Hartmann					FeAr ND3		12 Bias
90	BIAS(4)			20 31						
91	comp							"	4	
92	HD44982	06 19 48	82 21 00	20 42 01					1200	630
93	comp							"	4	
94	HD44982	"	"	21 04 43					745	360
95	comp							"	4	
96	BIAS(4)			21 18						
97	Comp							4	45	
98	HD44982	"	"	221414					200	585
99	HD44982	"	"	223522				"	1200	660
CC51100	comp							"	4	
01	HD44982	"	"	22 57 10					1200	724
02	comp							"	4	
03	BIAS(4)			23 18						
04	Comp							"	4	
05	HD62509	07 39 2	+28 16 04	23 2421					27	62K

CCD Spectr. Temp. −106.4 °C Dome Temp./Hum. −30°C 80%H Transparency Conditions Part Cloudy 82

Focus 6.95

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V no filter				CHSS CCD	1800 line 4706	30u	5184	3/4			
								1			
630	5"	9.8	95V					5 6			
								7			
360		"	"					8		through clouds	
								9			
								1			
								9			
585	6"	"	"					10		Δα +00 00 57 @ 00 45E Δδ −00 01 37	
660								11			
								12			
724		"	"					13			
								14			
								1			
		1.14						15			
92K		~~KO~~		KOWb				16	std vel		14K

1971 P92 "Service"

Date 1998 JUN 20/21 Observers [Vys]/Tn/Ly

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5106	HD62509	7 39 12	+28 16 04	23 26 07					32
07	Comp							FeAr	4s
08/14	flats x7							ND3 Tung ND4	6
15	BIAS(4)			23 33					0
16/17	Inboard/out Board							FeNe ND5	4/2
18	Comp							FeNe ND5	4
19	HD 36395	05 26 18	-03 41 00	23 48 49					498
20	Comp							"	4s
21	Comp							"	4s
22	BD-02 3000	09 53 13	-03 41 18	00 12 31					688
23	Comp							"	4c
24	BIAS(4)			00 30					0
25/31	FLATS x7							TUNG ND4	5s
32	BIAS(4)			01 24					0
33	Comp							FeNe ND5	269
34	BD+01 2447	10 23 49	+01 21 36	01 47 39					

Spectr. Temp. ..... Dome Temp./Hum. -5.1°C : 80% Transparency Conditions Part cloudy .....

Focus G95 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	32	~~as filter~~ 24K		1.14	K0 IIIb		1800 l/mm 4706	306u	5184Å	17	std vel		12.8
	48									18			
	16									2			12K
	0									1			
	4/2					Tgrating →	1800 l/mm 4775	306u	5300Å	3/4	focus test		
	4									5			
	4/0	920	5"	7.05	M1					6	Marcy std.	Δλ -00 00 02 02W ΔS -00 05 54	
	45									7			
	48									8			6K
	68	310	4"7"	10.54	M0					9	Hlw pgm	Δλ +00 00 01 mostly cloudy weak ΔS -00 01 09 Definitely not the brightest star to SW	
	42									10			6.4K
	0									1			
	56									2			~12K
	0									1			
	4/2	150				(CC 5135		CC 5136		14			
				9.65	M2	Then Comp)	E BIAS (4)			15	Ready std vel		

Wed / Thurs

Date JAN. 21/22. 1998. Observers [illegible] / LH / TM

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5113~~7~~/38	comp Inboard / out Board							FeAr ND4	46
~~39~~	~~Comp~~ BIAS(4)			1813 ~~0216~~					0
40	Comp							FeAr ND4	4
41	HD 12533	01 57 45	+51 51 00	18 18 21					126
42	Comp							"	45
43	Comp							"	"
44	HD 203156	21 15 23	+37 48 55	18 28 48					1200
45	Comp								
46/48	HD 30282	4 41 06	+36 32 00	18 55 09	Comp, star, comp,		[illegible]		1500
49	BIAS(4)			19 21					0
50/52	HD 22484	3 31 46	00 05 04	19 25 54	comp, star, comp				300
53/55	HD 44990	6 19 49	07 08 25	19 34 50	comp, star, comp				1577
56/58	HD 25361	3 56 47	+58 23 00	20 08 22	comp, star, comp				1582
59/61	HD 62509	7 39 12	+28 16 04	20 41 25	comp star, comp				293
62/68	flats							Tung ND5	7
69	BIAS(4)			20 51					0

CCD
Spectr. Temp. -100.4C Dome Temp./Hum. -3.4 66%H Transparency Conditions ... Cloudy ... 86

Focus ... 6.95 ...

Spectr. Temp. ... Dome Temp./Hum. -5.3C 70.3%H 400 0 50 1024 4 1 CCDFMT1

Comparison Filter Exp	Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	Ch.	Program	Remarks	Quality
40 4 46					CASSCCD Tgrating	1800/m 54.93	30u	~~GZ00A~~	~~12~~ 3/4	focus	~~Recentered~~ "	MAX ADU
0									12 1			
Ar 4									5			
126	10K	4"	2.26	K3-IIIb					6	Normalization STAR	Faint Ex comparison too	
4									7			
11			5.8 -5.9	F2					8			
1812	2100	4"	↓	↓					9	Rm cepheid	high priority	
									10			
1500	2050		8	F-G					10/11/12	Rm cepheid	high priority	2K
0									1			
300	2780	4"	4.28	F9 IV					13/14	Vel std	PART Cloudy	
1572	3.2K	3"	7	F-G					14/15/16	Rm High Priority	" "	2.6K
1582	1K		7.30 -8.07	F6 Ib-G2 Ib					16/17/18	Rm cepheid	Low priority	
39	3500		1.14	K0 III b					18/19/20	Std Vel		3.6K
3									21			13.2K
0									1			

60 p942 wed / THURS

Date 1.9.98 . . JAN. 21/22 Observers [V.Vys] for HLw / Tw / LLu

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS11 70/71	Inboard/outboard Hartmann test							FeNe ND4	4/2
72/74	HD 36395	05 26 18	-03 41 00	22 13 52	comp, star, comp		4sec	FeNe ND5	625
75/77	BD-02 3000 (2000)	09 53 13	-03 41 18	22 29 43	comp star comp		4sec	"	1200
78/79	"	"	"	22 52 40	star comp		"	"	90
80/81	"	"	"	23 09 28	star, comp		"	"	78
82	BIAS(2)			2325					0
83/89	FLATS x 7							TUNG ND4	55
90/92	BD+01 2447 (1900)	10 23 49	+01 21 36	23 51 58	comp, star, comp		4sec	FeNe ND5	766
93/94	"	"	"	00 08 11	star, comp.				939
95	BIAS(4)			0025					0

Spectr. Temp. ..... Dome Temp./Hum. −4.2°C 70% H Transparency Conditions . Part Cloudy 8.6

Focus ..... 6.95 .....

Spectr. Temp. ..... Dome Temp./Hum. −5.9°C 72.3% H 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V no filter				CASSCCD	1800 l/m 47.75	30μ	5300Å		focus test		
900	3"	7.97	M1					5/6/7	Marcy std	Vel Vhelio +8.52	~~P25K~~
723	4"	10.5x	M0					8/9/10	Hyp 560	Too cloudy at first	
540	3-4"	"	"					11/12	"	~ 20 ADU above sky	
550		"	"					11/12	"	Too cloudy	
								1			
								2			P25K
536	2-3"	9.65	M2					3/4/5	Marcy std	Vel Vhelio +8.36 Hyp std weak	
600	"	"	"					6/7		Δλ 00 007 λ 5 00 005	
								1			

Comparison Filter	Exp.
	4/2
	625
	1200
	90
	79
	0
	55
	766
	753
	0

PG 1999

Date 1998. Jan 30/31 Observers MKo+/Lu

Emulsion Batches:

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Spectr. Temp

Focus .....

Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr	S
CCS 196/97	Inboard/Outboard							FeAr NO 1	4/6	Hi 1320	
98	BIAS										
99	comp	1997.5						"	4		
CCS 1200	NGC 2903	09 32 02	21 30 36	05 53 13					603	660	
01	comp							"	4		
02	NGC 2903			06 09 40					700	750	
03	comp							"	4		
04	BIAS (4)			8 32							
05/13	flats							Tung NO 4	5		
14	comp	1997.5						FeAr NO 1	4		
15	NGC 4736	12 50 46	41 08 06	01 47 41					600	1500	
16	"	"	"	01 59 15					600	1486	
17	comp			02				"	4		
18	BIAS (4)			02 11							
19/28	flats							Tung NO #4	4		

Spectr. Temp. −100. Dome Temp./Hum. −3.0/76.20% Transparency Conditions clear 90

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. ..... 350 0 150 1024 2 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
HV 1320				CASS CCD	1800/56.10	3″	6563	3/4			
								1		fixed	
								5			
650	5″							6		time offset 1 day 1h 18m 29s	
								7			
750								8			
								9			
								1			
								2			15.3K
								10			
1500								11			
1486								12			
								13			
								1			
								2			12.6K

PG 2a1

Date 1998 Jan 30/31 Observers MKO + / Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc51229	comp		1997.5					FeAr ND1	4	
30	NGC4736	12 50 46	41 08 06	02 29 06					600	1500
31 60	"	"	"	02 40 27					600	"
32	"	"	"	02 51 06					600	"
33	comp							"	4	
34	comp							"	4	
35	HD90861	10 24 18	29 05 00	03 22 11					300	14K
36	"	"	"	03 29 24					600	32K
37	comp							"	4	
38	BIAS(4)			03 41					0	
39	comp							"	4	
40	HD132737	14 55 36	27 33 00	03 48 11					610	10K
41	comp							"	4	
42	BIAS(4)			04 00					0	
43	comp							"	4	
44	NGC4736	12 50 46	41 08 06	04 21 27					605	1560

Spectr. Temp
Focus
Spectr. Temp

Spectr. Temp. −100.2 Dome Temp./Hum. −4°/18.6% Transparency Conditions part clear 92

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. ..... 350 0 150 1024 2 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800l/mm 56.10	306	6563	5			
1500								6			
?								7			
?								8			
								8			
								9			
14K	5"	7.20	K2III					10			
32K								11			
								12			
								1			
								5			
16K		8.02	K0III					6			
								7			
								1			
	5"							7			
1560								8			

PG 3C93

Date 1998 Jan. 30/31 Observers MKo+/Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC51245	NGC 4736	12 50 46	41 08 06	04 32 20					600	1560
46	"	"	"	04 43 00					600	1535
47	comp							FeAr ND1	4	HV=1320V
48	NGC4736	"	"	04 55 42					600	1530
49	"	"	"	05 06 21					600	1530
50	"	"	"	05 17 24					600	1570
51	comp							"	4	
52	BIAS(4)			05 29					0	
53	comp							FeAr No1	4	
54	NGC4736	"	"	05 34 53					600	1505
55	"	"	"	05 45 27					600	1515
56	"	"	"	05 56 04					600	1530
57	comp							"	4	
58	NGC4736	"	"	06:08:26					600	1490
59	"	"	"	06 18 59					630	1570
60	comp							"	4	

Spectr. Temp
Focus.....
Spectr. Temp

Spectr. Temp. —100.2°C Dome Temp./Hum. -4.82/80.2% Transparency Conditions clear

Focus 6.90

Spectr. Temp. Dome Temp./Hum. 350 0 150 1024 2 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1560	5"			CASS CCD	1800 l/mm 56.10	30μ	6563	9			
1536								10			
HV=1320V								11			3K.
1530								12			
1530								6			
1570								7			
								8			
								1			
				CASS CCD	1800 l/mm 47.06	30μ	5184	5			
1505								6			
1515								7			
1530								8			
								9			
1490								10			
1570								11			
								12			

GSPG 4

Date 1998 Jan 30/31 Observers MKit/Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5126l	BIAS(4)								0
62	comp							FeAr ND1	4
63	HD132737	14 55 36	27 33 00	06 38 06					480
64	comp							"	4
65/74	flats							Tung ND 2	4
75	BIAS(4)			06 56					0
76	comp							FeAr ND1	4
77	SKy			06 01 04					51
~~78~~	~~comp~~ SKy			06 03 16				a	~~70~~
79	comp							"	4

You mean 7 EST, ? Tu

Yes, headers are OK Feb 3/98 noted.

Spectr. Temp
Focus.....
Spectr. Temp

Exp. Mir

Hv = 1320

PP, BK

30. K

50 K?

Spectr. Temp. −100,2°C Dome Temp./Hum. −43/77.9°C Transparency Conditions clear 46

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. ..... 350 0 150 1024 2 1 CCDPMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47,06	306 μ	5184	1			
HV=1320								5			
[8,8K		8,02	KOIII					6			
								7			
								2			11,1K
								1			
								5			
30.K								6			
50K?								7			
								8			

QTPG1

Date 1998 Jan 31/Feb 1 Observers Mike / Lu

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc51280	BIAS(4)			20 01					0
81/82	Inboard/outboard							FeAr ND1	4/6
cc51283	comp							"	4
84	HD29139	04 30 11	16 18 30	20 14 54					24
85	comp							"	4
86	comp							"	4
87	NGC1068	02 42 33	-00 01 24	20 28 16					1201
88	comp							"	4
89	NGC1068	"	"	20 51 35					1200
90	comp							"	4
91	BIAS(4)			21 14					0
93/98	flats							Tung ND 4	4
99	comp	→ junk, wrong							~~600~~ 4
cc51300	NGC2903	09 32 02	21 30 36	21 59 11					600
01	"	"	"	22 11 31					600
02	comp	→ for 300 and 301		→ 304				FeAr ND1	4

Spectr. Tem
Focus
Spectr. Tem

Exp. Mtr.

HV=1000
11 K;

HV=1320
3230

3215

~~600~~
800
524

Spectr. Temp. −100.3°C Dome Temp./Hum. −1.0/74° Transparency Conditions fair 98

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. ..... 350 0 150 1024 2 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 56.10	30μ/μ	6563	1			
								3/4			
								5			
HV=1000											
11 K:	2"	0.85	KS+III					6			
								7			
								7			
HV=1320											
3230								8			
								9			
3215								10			
								11			
								1			
								2			
~~800~~								5			
800								6			
824								7			
								8			

APG #2

Date 1998 Jan 31/Feb 1 Observers MK:+/Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Temp. / Focus / Spectr. Temp.
CC51303	BIAS(4)			22 24						
04	NGC2903	09 32 02	21 30 36	22 35 46					60	200
05	comp							FeAr ND1	4	
06/12	flats							Tung ND 4	4	
13	BIAS(4)			22 55						
14	comp							FeAr ND1	4	
15	HO77327	08 56 48	47 33 08	23 01 46					19	35K
16	"	"	"	23 04 02					51	100K
17	comp							"	4	
18	comp							"	4	
19	NGC4736	12 50 46	41 08 06	23 15 58					1240	3400
20	"	"	"	23 37 44					1200	3300
21	comp							"	4	
22	BIAS(4)			00 00					0	
23	NGC4736	"	"	00 02 51					1200	2210
24	"	"	"	00 23 23					1200	2260

Spectr. Temp. −109.3°C Dome Temp./Hum. −1.8/74.9% Transparency Conditions clear 100

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1500 l/mm 56.10	306μ	6563	1			
700								9		South off center	
								10			
								2			
								1			
								10			
33K		3.6	AVn					11			
100K								11			
								12			
								5			
3400.								6		1320 Volk Eyepiece	
3300								7		Very clear	
								8			
								1			
3210								9			
3260								10			

161 PG 3

Date 1998 Jan 31/Feb 1 Observers MK+/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ec51325	comp							FeAr ND1	4
26/32	flats							Tung ND 4	4
33	BIAS(4)			0049					0
									—
34	comp							FeAr ND1	4
35	NGC4736	12 50 46	41 08 06	00 57 03					1200
36	"	"	"	01 19 20					1200
37	Comp.							"	4
38	NGC4736	"	"	01:43:09					1200
39	"	"	"	02:05:55					1200
40	Comp.							"	4
41	bias(4)			0229					0
42	NGC4736	"	"	02:31:46					1200
43	"	"	"	02:53 05					1200
44	comp							"	4
45/54	flats							Tung ND #2	4

Spectr. Temp. −100.2°C Dome Temp./Hum. −2.4°C / 78.1% Transparency Conditions clear ioc

Focus 6.9°

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 56.10	306μ	6563	11			
								2			
								1			
				CASS CCD	1800/mm 47.06	306μ	5184	5			
3220								6			
								7			
								8	fixed.		
3000.								9		cloud?	
3000								10	x9	some cloud.	
								11			
								1			
2700								3		very haze	
2900								4			
								5			
								2			

10PG4

Date 1998 Jan 31/Feb 1 Observers MKS+/LL

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS1355	BIAS(4)			03 21					
56	comp							FeAr #01	4
57	HD90861	10 24 18	29 05 00	03 28 00					360
58	comp							"	4
59	comp							"	4
60	HD132737	14 55 36	27 33 00	03 41 07					600
61	comp							"	4
62	comp							"	4
63	NGC4736	12 50 46	41 08 06	04 04 53					1200
64	"	"	"	04 25 24					1200
65	comp							"	4
66	BIAS(4)			04 47					0

Spectr. Temp. −10.2°C Dome Temp./Hum. −2.2°C / 79.1% Transparency Conditions hazy 104

Focus 6.96

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						CASS CCD	1800 l/mm 47.06	306μ	5184	1			
	4									5			
	300	33K	2-3"	7.2	K3III					6			
	4									7			
	4									~~8~~			
	600	23.2K		8.02	K0III					8			
	4									9			
	4									9			
	200	~3000								10			
	1200	~2900								11		through clouds occasionally	
	4									12			
	0									1			

Pg#1 Sunmon

Date 1998 Feb1/Feb2 ... Observers [G.H.]/[T.M.L.Mk] .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS 67/68	Inboard / outBOARD							FeAr ND 3	4/5
69	Comp			18 42 27 / 140305 V				FeAr ND 4	4
70	HD19356	03 01 40	1900 +40 34 14	18 45 17 V	SAME 40 54				19
71	Comp		edit to 14	18 46 09 V				"	4
72	BIAS (4)			140647	V				0
73	Comp			on 18 SAME 14 14 14 / 18 53 36	V			"	4
74	HD222994	23 40 36	1900 +24 55 00	SAME 14 16 36 / 18 55 58	Astrodack / 18 55 58				1173
75	Comp			19 16 58 / 14 37 36	edit times			"	4
76	HD227994	"	"	19 19 58	19 19 58				870
77	Comp							"	4
78	Comp							"	4
79	RXSJ0101.4115	01 01 25	2000 +41 15 03	19 40 28					1819
80	Comp							"	4
81	BIAS (4)			20 14					0
82	Comp							"	4
83	HIP 17878	03 49 28	2000 +12 54 44	20 20 52				1800	9/15

Comp Spectr. Temp
Focus ... 74
Spectr. Temp

Exp. Mtr	S
1300 V	
2/500	
837	4
550	
175	2

CCD Spectr. Temp. −100.4°C Dome Temp./Hum. 0.5°C 80% H Transparency Conditions ..... PLAT. Cloudy. 165

Focus ... 7.07

Spectr. Temp. ..... Dome Temp./Hum. ..... 440 0 50 1024 4 1 CCDFmT HDL M4X

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				Tyrating →	600C l/mm 25.20	470u	4100	1/2	focus test		
								3		Had to Reset Cepheus (The new PC) clock	
		212	B8V	(Just the normalization	star)			4	mtg Lii	did some pressure	
								5		Two nights.	
								1			
								6			
~1500	2-4"	9.06						7			1.2K
								8		clock of New Cepheus set	
807	4-5							9		For Exp #51376	700
								10			
								11			
550	3"	11.0	?					12		~100 ADU Above Sky Some Cloud	
								13		Field checks out nicely	
								1			
								14			
985	2-3"	9.64						15	noted	clocks OUT. Faint comparison to South	

0749#2 Sunmon

Date 1998 Feb 1/2 Observers [illegible]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC51384	Comp							FeAr NO4	4s
85	HIP17878	034928	+125444 (2000)	205236					1895
86	Comp							"	4s
87	BIAS(4)			2127					0
88/93	FLATS x 6							FeAr ND3	6s
CC51394	BIAS(4)			2155					0
95/96	Inb/out Board							FeAr ND1	4/6
97	Comp							FeAr ND1	4
98	~~F~~ HD62509	073912 (1900)	+281604	224613					~~67s~~
99	Comp							"	4
CC51400	HD62509	"	"	225013					61
01	Comp								4
02	BIAS(4)			225756					0
03/08	FLATS x 6							JUNC ND3	4s
09	Comp							FeAr ND1	4s

CCD
Spectr. Temp. −100.3°C Dome Temp./Hum. −00.3°C 84.3% H Transparency Conditions .. P.C.A.T. Cloudy 10K

Focus 7.07 6.90 for 1800 l/m grating

Spectr. Temp. ..... Dome Temp./Hum. ..... CD 440 050 1024 4 1 CCDFmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V				CASSCCD	060 25.20	47u	4100Å	16			10K
1690	3"	9.64						17	AST 325 ppm		
								18			
								1			
								2			14K
					1800 l/m 47.06	30u	5184Å	1		400 050 1024 4 1 CCDFmt	
								3/4	focus		
								5			10K
~~605~~K	2"	1.44 KO III						8	Std Vel	cloudy Beb Gem	4K
								10			
10.5K								11	"		7K
								12			
								1			
								2			11K
								5			9K

log pg #3

Sun/Mon

Date . 1998 . Feb 11/12 . . . . Observers . [Gl] . / . Tu . . . . . .

Emulsion Batches: . . . . . .

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Plate No.	Object	R.A. ~~1900~~ 2000	Declination ~~1900~~ 2000	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
Cc51410	FF Cnc	082940	+171702	232717					1464	1000V 358
11	Comp							FeAr NOI	4s	
12	FF Cnc	"	"	235330					730.	152
13	Comp.							"	4	
14	FF Cnc	"	"	00:10:12					385	447
15	Comp							"	4	
16	Bias(4)								0	

Spectr. Temp. ..... Dome Temp./Hum. -00.7°C 85.5% Transparency Conditions Mostly cloudy ..... 110.

Focus ... 6.90 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Hts. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 358	2"-3"	10.6		CASS CCD	1800/m 7.06	306u	5184	6			
								7			
152								8		Stopped by cloud	
								9			
247								10			
								11			
								1			

Upg #1 Trust tuned

Date 1998 Feb 3/4 Observers MKi/Tn + [Vys] too

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC51417	BIAS(4)			18 13					0
18/19	Inboard/outboard Hartmann							FeAr ND1	4/6
20	HD Comp							"	4
21	HD19356	030140	+403414	181631					55
22	Comp							"	4
23	Comp							FeNe ND5	4s
24	Vys 396A?	~2 3052	~06 24 57	183726					174
25	Comp							"	4
26	Vys 396B	02 3052	+06 24 57	184343					1692
27	Comp							"	4
28/32	FLATS x 5 CC51408 (BIAS(4)) 4 flats			1914				TUNG ND3	4s
33	Comp							FeNe ND5	4s
34	Vys 406	02 46 37	+26 33 59	192711					1600
35	Comp							"	4s
36	BIAS (4)			1955					0

CCD
~~Spectr.~~ Temp. −100.3 °C Dome Temp./Hum. −35°C 66%H Transparency Conditions Fine IR

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. ..... CJ 400 0 50 1024 4 1 CCDFAINT

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V no filter				CASS CCD	1800/m 47.06	306u	5184Å	1			
								3/4	focus test		3.5k
13								5			6.5k
13k		2.12	B8V					6	Normalization star		6.5k
								7			
						306u	5184 ~~5300Å~~	8	* seems grating tilt didn't change?		
1700	5"	5.9	K0			but	5300Å intended 5184Å actual	10	* Vys 3961, The Brightness of Pair		
								11	*		
256	4.6"	11.66	M					12	* wang >	Half moon a bit close & bright	
								13	*		
							5184Å	14	*	(AH edited now)	
					1800/m 47.74		5300Å	15		50 AM above SKg	
236	4"	10.8	M0					16	Vys pgm	AC+26 7021	OK
								17			
								1			

1m pg #2 Tues / Wed

Date ...1998 Feb 3/4... Observers ...[Vys] / Mk. / Tu.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
CC51437	Comp							FeNe N05	4s	
38	Vys 99	03 02 48	+45 21 19	200023					1577	490
39	Comp							"	4s	
40	Comp							"	4s	
41	Vys 430	03 42 47	+02 29 10	20 34 45					1800	255
42	Comp							"	4s	
43	Comp							"	4	
44	HD 36395	05 26 18	-03 41 00	21 10 28					929	1650
45	Comp							"	4	
46	B/AS (4)			21 27					0	
47	Comp/~~BD-02 3000~~ BD-02 3000						4s	FeNe N05	4s	
48	BD-02 3000	09 53 13	-03 41 18	21 37 13					996	900
49	Comp							"	4s	
50	BD -02 3000	"	"	21 55 31					968	332
51	Comp							"	4s	

Spectr. Tem
Focus ...6
Spectr. Tem

Spectr. Temp. ..... Dome Temp./Hum. ~5.5°C 68.3%H Transparency Conditions ... Fine - increasing cloud.

Focus ... 6.90 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V				CASSCCD IgRating →	1800/m 47.74	30μ	5300Å	18			54K
490	3"-6"	10.2	MO					19	AC+45 130-216		
								20			
								20			
385	3"-4"	11.2	MO					21	AC+2 2082-51		
								22			6K
								23			~~5~~K
1650	3"-5"	7.97	M1					24	MARCY std.	Vhelio +8.52	
								25			
								1		Definitely not the Bright star to SW ~3'	
		~~10.5~~						26		Δα +00 00 12	
900	~~3~~ 6"	10.54	MO					27	Vijs 560	Δδ -00 00 24 some cloud at start	
								28			
332								29		540MU above sky	
								30			

11" pg #3 Tues/Wed

Date 1998 Feb 3/4 Observers [Vys]/Tu/Mki

Emulsion Batches:

Plate No.	Object	R.A. ~~1900~~ 2000	Declination ~~1900~~	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	S
CC51452	BD-02 3000	09 53 13	-03 41 18	22 14 17					1079	1000V 344	4
53	Comp							Feltz NO5			
54	BIAS(4)			22 34					0		
55	Comp							"	4s		
56	BD+01 2447	1900 10 23 49	+01 21 36	22 39 14					1039	600	
57	Comp							"	4s		
58	Comp							"	4s		
59	Vys 573	10 11 52	-11 27 17	23 04 25					2000	505	
60	Comp.							"	4		
61	BIAS(4)			23 43 26					0		
62	~~BIAS (4)~~ Comp							"	4		
63	Vys 579	10 20 15	-09 43 25	23 52 29					1350	416	4
64	Comp							"	4		
65	Comp							"	4		
66	HD 95735	10 57 54	+36 38 00	00 24 05				593	4	1100	
67	Comp							"	4		

Spectr. Temp. ..... Dome Temp./Hum. −5.8°C 65.9%H Transparency Conditions . Mostly clear 116

Focus ..... 6.90 .....

~~Spectr~~ CCD Temp. − ..... °C ..... Dome Temp./Hum. −6.2°C 65.5%H CD

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V 344	4"-5"	10.54	M0	CASS CCD	1800 l/m 47.74	306u	5300Å	6	Vys 560		
								7			
								1			
								8			
600	5"	9.65	M2					9	Marcy std vel	V helio +8.36	
								10			
								11			
565		11.0	M0					12		Δλ 00 00 07 Δλ −00 00 54	
								13			
								1		~~Done moved~~.	
								14			
466	4-6"	10.2	M0	note CC51468 BIAS(4) CC51469/CC51475 FLATS at encl Tung @ 6s ND3				15	BD-09 3070		
								16			
								20			
1100	5"	7.44	M2					21	Marcy std vel	V helio −84.70	
								22			

11 Page 1

Tues/Fri

Date 1.9.98 Feb 5/6 Observers L4/Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCSI4 76/77	Inbound/out Board							RHE NO1	4/6
78	BIAS(4)								0
79	Comp							"	4
80	HD19356	030140	+40 3414	1815:32					20s
81	Comp							"	4
82	Comp							"	4
83	AO Cam	042813	2000 +530242	182414					1060
84	"	"	"	18 42 54					1080
85	comp							"	4
86	AO Cam	"	"	19 03 46					1080
87	"	"	"	19 22 22					1150
88	comp							"	4
89	AO Cam	"	"	19 43 33					1080
90	comp							"	4
91	BIAS(4)			2003					0
92	Comp							"	4

CCD Spectr. Temp.

Focus 6

Spectr. Temp.

Exp Mir	Se
1060V	
JAK	3
:60	3
351	
341	
355	
334	

CCD
Spectr. Temp. ...-100.7..... Dome Temp./Hum. ...-20°C 18%H... Transparency Conditions ...Fine..... 16.

Focus .....6.97.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Rec. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10000				CASS CCD	1800/m 47.06	30u	5184Å	3/4	focus test		
								1			
								5			
74K	3"	212	B&V					6	Normalization Stds.		
								7			
								8			74
360	3"	9.5						9	WUMa		
351								10			
								11			
341								12			
335								13			
								14			
294								15			
								16			
								1			
								16			

11PG2 Thurs/Fri

Date 1998 Feb 05/06 Observers Lu/Tn

Emulsion Batches: .....

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duplicate of cc51492 actually.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc51493	~~RXSJ01.4+415~~ Ref	01 01 25 2000	41 15 03	20 07 34					2190
94	Comp							Ref NO1	45
95	RXSJ01.4+415	01 01 25 2000	41 15 03	20 52 48 Time	shit ok after	Reboot			1805
96	Comp							"	45
97	BIHS(4)			21 24					
98	Comp							4	45
99	HD224484	3 31 46	+00 05 04	21 29 02					111
cc51500	Comp							4	45
01	comp							"	4
02	HD 44982	06 19 48	82 21 00	21 37 21					1000
03	"	"	"	21 54 28					1100
04	comp							"	4
05	comp							"	4
06	AO Cam	04 28 13	53 02 42	22 21 00					1250
07	"	"	"	22 42 22					1080
08	comp							"	4

Spectr. Temp. −100.7 Dome Temp./Hum. −3.7°C / 54.5% Transparency Conditions fine 120

Focus 6.97

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFmT

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/96	1000V 336	3"-4"	11.0	?	CASS CCD	1800 l/mm 47.06	518μ	5184Å	17	Gld progedure	XGPIB error But it wrote ok?	
4 15									~~11~~		After reboot	
1837	264	5"	11						2			
4 15									3			43K
									1			
4 11									4			
111	49K	5"	428	F9 D-V					5	std bel		2K
4 5									6			
4									6			
1000	7.9	4"	9.8	G5V					7			
1100	820								8			
4									9			
4									9			
1259	368		9.5	?					10			
1553	327	3"							11			
4									~~12~~			

12B93 Thurs/Fri

Date 1998 Feb 05/06 Observers Lu/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5150	BIAS(4)			23 01					0
10	AO Cam	04 28 13	53 02 42	23 03 20					1000
11	"	"	"	23 20 25					1012
12	Comp							F2AR ND1	4
13	AO Cam	"	"	23 40 29					1040
14	"	"	"	23 58 21					1100
15	comp							"	4
16	BIAS(4)			00 18					0
17	AO Cam	"	"	00 19 19					1101
18	comp							"	4
19	Comp							"	4
20	HD65583	7 54 18	+29 31 00	00 45 50					527
21	Comp							"	4
22	BIAS(4)			01 06					0
23/29	FLATS x 7							TUNG ND3	55
30/31	In B / OUT		for	next setup					

Spectr. Temp. −100.7 Dome Temp./Hum. −41/55.9 Transparency Conditions fine 1.22

Focus 6.97

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	0					CASS CCD	1800 l/mm 47.06	306 μ	5184	1			
	1000	333	2"-3"	9.5	?					13			
	1012	330		"						13		— time corrected.	
	4									14			
	1040	301	2"-3"	9.5	?					15			
	1120	300		"						16			
	4									17			
	0									1			
	1101	300	2"-3"	9.5	?					18			
	4									19			
	4									19		slit ccd FMT ??	3K
	5??	5.6K	2-3"	7.0	dG7					20	Stelbel		3K
	4									21			
	0									1		Timo slit OK on Cepheus	
	5?									22		Another Cepheus	
								150μ	5844	3/4	focus	Failure.	

123 Rg #4

Date ... 1998 Feb 5/6 ... Observers ... [Gld] / Lq / Tm ...

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5153	~~Feb~~ Comp	~~Declination~~	1900					Fea ND3	4s
33	HD 65583	7 54 8	+74 3 00	01 22 24					320
34	Comp							"	4s
35	Comp							"	4c
36	BD+64 1134	16 27 57	2000 +63 57 41	01 39 42					1801
37	comp							"	4
38	BD+64 1134	"	"	02 12 05					1800
39	comp							"	4
40	BIAS(4s)			02 43					0
41	BD+64 1134	"	"	02 44 49					1800
42	comp							"	4
43	BD+64 1134	"	"	03 17 02					1800
44	Comp							"	4
45	BD+64 1134	"	"	03 49 56					1805
46	Comp							"	4
47	BIAS(4)			04 22					0

Spectr. Temp
Focus .....
Spectr. Temp

Disp Mtr.	S
2.7K	
3.01	
3.21	
3.7	
3.9	

Spectr. Temp. ..... Dome Temp./Hum. -17°C 59284 Transparency Conditions .. Fine 1.24

Focus ..... 6.97 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CO 400 0 50 10741 CCDFT

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS Igrating	1800/m 5°.58	250μ	5894Å	23			
2.7K	2"	7.00	d67					24	Stivel		2K
								25			
								25			5.5K
301	2"-3"	11.36						26	Gld pym [HI] Field drama		~~X~~
								27	In old Field book. It checks out with OSS TOO.		
321	2"-3"	"						28			
								29			
								1			
321	2"	"						30			
								31			
317	1"-2"							6			
								7			
319	1"-2"							8			
								9			
								1			

NSPGS

Date 1998 Feb 5/6 Observers Lu/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc515 ~~16~~	BD+64 1134	16 27 57	63 57 41	04 26 35					1800
49	comp							FeAr ND 3	4
50	BD+64 1134	"	"	04 59 25					1800
51	comp							"	45
52	BIAS(4)			05 34					0
53	BD+64 1134	"	"	05 35 59					1886
54	comp							"	45
55	BD+64 1134	"	"	06 09 27					1706
56	comp							"	4
57	comp							"	4
58	HD177724	19 00 49	13 42 53	06 ~~46~~ 44 04					43
59	Comp							1	4
60	BIAS(4)			06 46					
61/67	flats							Trng ND ~~4~~	3

Spectr. Temp
Focus.....
Spectr. Temp

Exp Mtr	
230	
384	
383	
422	
1151	

Spectr. Temp. −100,7 Dome Temp./Hum. −5.5/56.9 Transparency Conditions fine 1.26

Focus 6,97

Spectr. Temp. Dome Temp./Hum. −5.8°C 56.8%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
230				CASSCCD	1800 1/mm 51,58	306μ	5894Å	1		Had to Reboot all again,	
								2			
284	2"-3"	11,36	?					3			
								4			
								1			
383	2"	11,36						5			
								6			
422	2"							7			
								8			
								8			
10,5K		2,99	AOV,					9	Telluric Std.		
								10			
								1			
								2			11.5K

PAGE 1

Date 1978 Feb 06/07 Observers Gld / Lq

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc51568/69	Inboard/outboard							Fabry ND1	4/7	
70	BIAS(4)			2149						
71	comp	(2000)						"	4	
72	FF Cnc	08 29 40	17 17 02	21 52 06					1803	395
73	comp							"	4	
74	FF Cnc	"	"	22 24 17					1800	371
75	comp							"	4	
76	BIAS(4)			2255					0	
77	FF Cnc	"	"	22 57 38					1804	380
78	comp							"	4	
79	FF Cnc	"	"	23 30 52					1800	412
80	comp							"	4	
81	BIAS (4?)			0002					0	
82	FF Cnc	"	"	000413					1800	414
83	COMP							"	4	

Spectr. Temp. −100.2°c Dome Temp./Hum. -7.5/63.1 Transparency Conditions fine 28

Focus 6.93

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47.06	306μ	5184	3/4			
								1			
								5			
395	3"	10.5	K1+K4					6		Gd Program	
								~~6~~			
371		"	"					7			
								8			
								1			
380	2"-3"	"	"					9			
								10			
412	2"	"	"					11			
								12			
								1			
4141	2"	"	"					13			
								14			

PG2129

Date 1995 Feb 06/07 Observers GW/LH

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CCS1581	FF Cnc	08 29 40	17 17 02	00 36 32					1530	494
85	comp							FeAr ND 1	4	
86	BIAS(4)			01 09					0	
87	FF Cnc	"	"	01 10 15					1800	475
88	comp							"	4	
89	FF Cnc	"	"	01 43 39					1600	466
90	comp							"	4	
91	BIAS(4)			02 14 50					0	
92	FF Cnc	"	"	02 17 06					1800	458
93	comp							"	4	
94	FF Cnc	"	"	02 51 47					1600	418
95	comp							"	4	
96	BIAS(4)			03 23 14					0	
97	comp							"	4	
98	HD62509	07 39 12	28 16 04	03 28 16					25	.5
99	"								27	.54

Spectr. Temp
Focus
Spectr. Temp

Spectr. Temp. −100.2 Dome Temp./Hum. −3.5/64.7 Transparency Conditions excellent. 1.3"

Focus 6.93

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
494		10.5	K1+K2	CASS CCD	1800 l/mm 47.06	306μ	S184	15			
								16			
~~475~~								1			
475								17			
								18			
466	2"							19			
								20			
								1			
458								21			
								22			
418								23			
								24			
								1			
								24			
105K								25	Vel. Std	star ↕ across slit during exp	
10.5K								26		star below slit	

PG3 1M1

Date 1998 Feb 06/07 Observers Gld/Lm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Temp. / Focus / Spectr. Temp.
~~51600~~ CCD600	β Gem	07 39 12	28 16 04						10s	(0.5k
01	comp							F-filter ND1	4s	
02	comp							"	"	
03	HD 86801	09 55 48	29 02 00	03 36 13					355	1003
04	comp							"	4	
CCD1605	comp							"	4	
06	HD 90861	10 24 18	29 05 00	03 46 51					300	3060
07	HD ~~90861~~	"	"	03 59 10					300	3018
08	comp							"	4	
09	comp	~~11 49 40~~						"	4	
10	c26-06	11 49 40	55 03 55	04 03 51					1800	40
11	comp							"	4	
12	BIAS (4)			04 36					0	
13	comp							"	4	
14	c15-04	11 53 59	55 14 35	04 40 57					1800	29
15	comp							"	4	

Spectr. Temp. 100.24 Dome Temp./Hum. 4.8/62.4 Transparency Conditions excellent 132

Focus 6.93

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
(0. St.		L.M	K III					27		Star above slit.	
								28			
								28			
1003		8.88	GOV					29		Vel Std	
								30			
								5			
3060		7.2	K2 II					6		Vel Std.	
3018		"	"					7			
								8			
								9			
40		13.11	B-V 0.79					10		Carlsberg Pgm tests	
								11			
								1			
								12			
29		13.67	B-V -0.04					13			
								14			

MPG4

Date 1998 Feb 06/07 Observers Gld/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc51616/22	flats							Tung ND3	4
cc51623	comp	~~16 58 24~~	~~57 25 19~~	~~10 31 10~~				FeAr ND4	4
24	tyc 3882548	16 50 24	57 25 19	05 31 10					1800
25	comp							+1	4
26	tyc 3882548	"	"	06 02 55					1715
27	comp							"	4
28	BIAS (4)			06 33					0
29	BIAS (4)			06 34					0
30/36	flats							Tung ND3	5

Spectr. Temp. 100.4 Dome Temp./Hum. 53/62.1% Transparency Conditions fine 184

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				1800 l/mm 47.06	CASS CCD	306μ	5184	2			12K
		12		CASS CCD	600 l/mm 25.20	470μ	4100	5	(445 0 50 1024 4 1 CCDFMT)		12K
272	2"	12.1	AO?					6		{HI}	
								7			
309		"	"					8		sky brightening at end	
								9			
								10			
								11			
								12			

PG 1 of 5

Date 1998 Feb 07/08 Observers MK/LA

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
L51637	MD 20162	03 09 17	44 58 33	18 17 16					68
L51638	comp.							F2Ar ND1	4
39	Bias(4)								
40/41	Inboard/outboard							"	4/4
42	comp.							"	4
43	CN And	00 20 30	40 13 36	18:25:49					900
44	"	"	"	18 41 38					900
45	comp							"	4
46	BIAS(4)								0
47	CN And	"	"	19 00 05					900
48	comp							"	4
49	comp							"	4
50	AO Cam	04 28 13	53 02 42	19 20 57					720
51	"	"	"	19 33 18					720
52	comp							"	4
53	BIAS(4)			1946					0

Spectr. Temp. −100.7 Dome Temp./Hum. −10.0/58.0 Transparency Conditions fine 136

Focus 6.93

Spectr. Temp. ..... Dome Temp./Hum. 400 0 50 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 volts	2"	6.16	M2III	CASS CCD	1800 l/mm 47.06	306μ	5184	5		Nomination Star.	
								5			
								3/4			
								6			
868	2"	10.0	FS					7		sky still bright at beg. morning.	
694		"	"					8			
								9			
								1			
671								10			
								11			
								11			
325	1"-2"	9.5?	?					12			
302								13			
								14			
								1			

PG 2 137

Date 1998 Feb 7/08 Observers MK:/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.	S
cc51654	AO Cam	04 28 13 (1900)	53 02 42	19 47 48					720	269	
55	comp							FeAr ND 3	4		
56	Comp.							"	4		
57	EQ Tau	03 48 13	22 18 49	20 08 05					900	205	
58	"	"	"	20 24 24					900	193	
59	comp							"	4		
60	BIAS(4)			20 41 15							
61	EQ Tau (SAVE)	"	"	20 44 01					720	351	
62	Comp.			21 08 06					4		
63	Comp.								4		
64	HD 74886		← 09 11 36 (1900)	← 77 34 00					600	1540	
65	Comp.							"	4		
66	Comp.								4		
67	HD 62509		← 07 39 12	21 34 12 ← 21 16 04					20	3440.	
68	Comp.							"	4		
69	Comp.							"	4		

Spectr. Temp. −100.3 °C Dome Temp./Hum. −2.4 / 63.6 Transparency Conditions Fine 1.20.

Focus 6.93

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Dg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
269				CASS CCD	1800 l/mm 47.06	306μ	5184	15			
								16			
								17			
205		11.9	G1					18.			
193								19			
								20			
								1			
350		10?	?					21		"Companion" to EQ Tau.	
								22			
1540		8.6	F2					23		00 55 −01 3	
								24.			
								25		BGen. RV Std.	
20, ∞.		1.14	K0 III b					25		Trailed. V. bright.	
								26			
								27			

MG3

Date 1998 Feb 07/08 Observers MK / Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
4 51670	EQ Tau.	03 48 13	22 18 49	21 58 51					1000	184
71	"	"	"	22 16 23					1000	198
72	comp							Filter No 1	4	
73	BIAS(4)			22 34					0	
74	EQ Tau	"	"	22 35 52					1000	200
75	"	"	"	22 52 53					900	208
76	comp							"	4	
77	EQ Tau (SE)	"	"	23 10 17					630	245
78	comp							"	4	
79	BIAS(4)			23 21					0	
80	comp							"	4	
81	HD54975	07 05 54	-03 43 00	23 31 11					620	1380
82	comp							"	4	
83	comp							"	4	
84	HD66141	07 57 04	02 36 34	23 46 30					60	6500
85	comp							"	4	

Spectr. Temp
Focus
Spectr. Temp

Spectr. Temp. −100.3°C Dome Temp./Hum. ~3.5/66.0 Transparency Conditions ..... fine 145

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
184	2"-3"	11.9?	G1	CASS CCD	1800/mm 47.06	306μ	5184	28			
198	〃	〃	〃					29			
								30			
								1			
200	2"	〃	〃					6			
208								7			
								8			
265		10.?	K?					9		"Companion" to EQ Tau	
								10			
								1			
		~~8.3~~	~~F5~~					11			
360		8.3	F5					12			
								~~13~~			
								13			
6500		4.39	K2III$_b$					14			
								15			

PG4 1W

Date 1998 Feb 07/08 Observers MK: / Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc5168b	comp							FeAr ND3	4	
87	HD54975	07 05 54	-03 43 00	23 52 00					640	1530
88	comp							"	4	
89	comp							"	4	
90	HD79886	09 11 36	77 39 00	00 10 39					602	1350
91	comp							"	4	
92	BIAS(4)			00 22					0	
93	comp							"	4	
94	HD54975	07 05 54	-03 43 00	00 34 32					720	1033
95	"	"	"	00 47 06					720	1303
96	comp							"	4	
97	HD54975	"	"	01 01 04					729	1206
98	"	"	"	01 13 37					720	1414
99	comp.							"	4	
cc5170b	BIAS (4)			01 27					0	
				01 27						

Spectr. Temp. −100.3°C Dome Temp./Hum. −3.9/65.2 Transparency Conditions Fine 142

Focus 6.93

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								15			
1530		8.3	F5					16			
		"	"					17			
								17			
1250		8.6	F2					18			
								19			
								1			
								20			
1400		8.3	F5					21			
1300		"	"					22			
								23			
1220		"	"					24			
1144		"	"					25			
								26			
								1			

PGS 143

Date 1998 Feb 07/08 Observers MKi/Lu

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5170	comp							FeAr No 1	4
702	HD 64583	07 54 18	29 31 00	01 37 42				2A	~~4~~ 48
703	comp							"	4
04	comp							"	4
05	HD 95660	10 57 24	30 58 00	01 46 25					600
06	"	"	"	01 56 50					600
07	comp							"	4
08	comp							"	4
09	OU Ser	1991.25 15 22 44	16 15 41	02 19 36					420
10	"	"	"	02 26 58					420
11	"	"	"	02 34 20					420
12	comp							"	4
13	BIAS(4)			02 43					~~2~~
14	OU Ser	"	"	02 43 53					420
15	"	"	"	02 51 16					420
16	"	"	"	02 58 4					420

Spectr. Temp
Focus .....
Spectr. Temp

Exp. Mtr	
1800	
870	
633	
420	
960	
930	
972	
1005	
990	

Spectr. Temp. −100.3°c Dome Temp./Hum. −4.8/62.1 Transparency Conditions ...fine...1.44

Focus ...6.93...

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CRES CCD	1800 l/mm 47.06	306μ	5184	26		(Moon very close)	
1800		7.0	G7					27		RV Std. (Mercury) Bright Sky	
								28			
		8						28			
1870		8.0	F2					29	* Triple system!		
1633		"	"					30			
								31			
								5			
920		8.2	G5					6			
960								7			
930								8			
								9			
~~922~~								10			
972								10			
1055								11			
1040								12			

PG 6145

Date 1998 Feb 07/08 Observers MKi/Lu

Emulsion Batches:
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Spectr. Tem
Focus.....
Spectr. Tem

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CCS1717	comp							FeAr ND1	4	
18	OU Ser	15 22 44	16 15 41	03 07 26					464	1047
19	"	"	"	03 15 37					442	830
20	"	"	"	03 23 24					420	781
21	comp							"	4	~~784~~ 784
22	OU Ser	"	"	03 32 06					420	957
23	"	"	"	03 39 37					420	1060
24	"	"	"	03 47 05					420	1063
25	comp							"	4	
26	BIAS(4)			0355					0	
27	OU Ser	"	"	03 56 41					426	1100
28	"	"	"	04 04 12					420	1116
29	"	"	"	04 11 38					420	1130
30	comp							"	4	
31	OU Ser	"	"	04 21 08					420	1145
32	"	"	"	04 28 32					420	1158

Spectr. Temp. −100.3 ..... Dome Temp./Hum. −51²/60.0% Transparency Conditions ... fine ..... 146.
some thin clouds.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800/mm 47.06	366 μ	5184	13			
1047		8,2	G5					14			
830								15			
781								16		Some clouds.	
~~781~~								17			
957								18			
1060								19			
1063								20			
								21			
								1			
1100								22			
1116								23			
1200								24			
								25			
1185								26			
1108								27			

PG7147

Date 1998 Feb 07/08 Observers MKi/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr	Se
ec51733	OU Ser	15 22 44	16 15 41	04 36 03					420	1045	
34	comp							Fe Ar ND 1	4		
35	OU Ser	"	"	04 44 39					420	984	
36	"	"	"	04 52 18					420	1000	
37	"	"	"	04 59 58					420	998	
38	comp							"	4		
39	BIAS (4)			05 08					0		
40	OU Ser	"	"	05 11 01					420	1010	
41	"	"	"	05 18 28					420	1160	
42	"	"	"	05 25 49					420	1160	
43	comp							"	4		
44	OU Ser	"	"	05 34 30					420	1200	
45	"	"	"	05 41 47					420	1258	
46	"	"	"	05 49 08					420	1293	
47	comp							"	4		
48	OU Ser	"	"	05 57 47					420	18	

Spectr. Temp.
Focus
Spectr. Temp.

Spectr. Temp. −109.3°C Dome Temp./Hum. −56/59% Transparency Conditions fine 1.45

Focus 6.93

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
420	1045		8.2	G5	CASS CCD	1800 l/mm 47.06	306 μm	5184	28			
4									29			
420	984								6		Some clouds.	
420	~1000								7			
420	998								8			
4									9			
6		2"							1			
420	1010								10			
420	1160								11		S/N ~ 80	
420	1160								12			
4	bl								13			
420	1200								14			
420	1288								15			
420	1233								16			
4									17			
420	1378								18			

PG8 149

Date 1998 Feb 07/08 Observers MKi / Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS1749	OU Ser	15 22 44	16 15 41	06 05 06					420
50	"	"	"	06 12 27					420
51	comp							FeAr ND 1	4
52	OU Ser	"	"	06 21 57					420
53	OU Ser	"	"	06 29 25					420
54	"	"	"	06 36 43					420
55	comp	"	"					"	4
56	BIAS(4)			06 45					0
57/65	flats							Tung ND 3	4

Spectr. Temp. −100.3 Dome Temp./Hum. −60/62.1 Transparency Conditions ..... fine 1.50

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. −58/62.1 400 0 50 1024 4 1

Comparison/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	420	1400	2"	8.2	G5	CASS CCD	1800 l/mm 47.08	306μ	5184	19			
	420	1400								20			
Ar 01	4									21			
	420	1300								22			
	420	1380								23			
	420	1470								24	sky bright		
4	4									25			
	0									1		B	
avg 4 D3	4									2		B	1324

pg#1 151 sun/mon

Date 1998 Feb 8/9 Observers MKi/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc51766	Comp							Fe4r ND2	4	1000
67	HD19356	030140	+40 3414	184550					24	
68	Comp							"	4	
69	BIAS (4)			1849					0	
70	Comp							"	4	
71	RXSJ0101.4115	01 0125 (2000)	+41 1503	190039					1547	324
72	Comp							"	4	
73	RXSJ0101.4115	"	"	192804					1787	320
74	Comp							"	4	
75	RXSJ0101.4115	"	"	195107					1397	380
76	Comp							"	4	
77	BIAS (4)			2016					0	
78	RXSJ0101.4115	"	"	201780					1293	400
79	Comp							"	4	
80	RXSJ0101.4115	"	"	204009					1196	418
81	Comp							"	4	

CCD Spectr. Temp
Focus
Spectr. Temp

CCD
Spectr. Temp. −100.3°C Dome Temp./Hum. 0°C 58% Transparency Conditions Fine 1.52

Focus 6.93

Spectr. Temp. −100.4°C Dome Temp./Hum. (-) 400 0 50 1024 4 1 CCDFOAT

Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10000				CASS CCD	1200l/m 47.06	306	SI 816	5			
	1"-2"	2d2	B8 V					6			
								7			
								1			
								8			
324	1"	11						9	Gld pgm	150 Wcubes sky	
								10			
320								11			
								12			
380	1"							13			
								14			
								1			
400								15			
								16			
400								17			
								18			

pg 42 \53

Sun/Moon

Date 1998 Feb 8/9 Observers Mk./Tan

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
			2000						
CCS1782	RXSJ0101.9115	01 01 25	+41 15 03	210151					1032
83	Comp							Fe Ar ND2	4s
84	BIAS (4)								0
85	Comp							"	4
86	HD 22484	03 31 46	+00 05 04	212455					71
87	Comp							"	4
88	Comp							"	4
			2000						
89	EQ Tau	03 48 13	+22 18 49	213232					904
90	"			214832					900
91	Comp.			~~21 46~~				"	4
92	EQ Tau.	"	"	220625					918
93	"			222237					909
94	Comp							"	4s
95	EQ Tau	"	"	223949					1033
96	"			225734					905
97	Comp							"	4

Spectr. Temp. ..... Dome Temp./Hum. -1.5°C 61.3%H Transparency Conditions .... Fine ..... 1.54.

Focus .. 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. -2.4°C 64.4%H

Exp. Mtr.	Seeing	Phy. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1600 V 322	1-2"	11		CASS	1800 l/m 4 7.06	300	5184Å	19			
								20			
								1			
								21			
5.4K	·	428	F9 IV-V					22	std vel		3-5K
240	1"	12	G1					25		Superb Seeing	
215								26		Bright sky (moon)	
								27			
190	1"							28			
178	1"							29			
								30			
210	1-2"							6			
	"							7			
								8			

Pg#3 154 Sun/Moon

Date 1998 Feb 8/9 Observers MK/JM

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC51798	BIAS(4)			2313					0
99	Comp							FeAr HD2	4s
CC51800	HD 79886	091136	+77 3906	231943					600
01	Comp							"	4
02	Comp								
03	HD95660	10 57 24	+30 5600	233740					420.
04	"			23 4607					420
05	"			23 5352					420
06	Comp							"	4
07	HD95660	"	"	00 0229					498
08	"			00 1111					420
09	"			00 1832					422
10	Comp								4
11	BIAS(4)			0026					0
12	Comp								4

Spectr. Temp
Focus
Spectr. Temp

Exp Mtr	S
.000	
1385	
1410.	
1860	
1850	
2.2K	
1.8K	

Spectr. Temp. ..... Dome Temp./Hum. -2.5°C 64% Transparency Conditions .. Fine 156

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASSCCD	1800 l/mm 47.06	306u	5184A	1			
								9			
1385	1-2"	86	F2					10			
								11			
								11			
1910.	1"	8.0	F3					12		← ~~for lander~~. Triple?	
1860								13			
1850								14			
								15			
2.2K	1"							16			
1.8K								17			
								18			
								19			
								1			
								20			
								~~20~~			

KA pg#4 Sun/mon

Date ..1998.Feb8/9..... Observers ...MKi/Tq.....

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900 2000	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
EC51813	FU Dra	15 3446	+62 16 44	00 3257					869	328
14	"			00 4806					827	321
15	Comp							Fea ND2	4s	
16	FU Dra	"	"	01 0325					807	350
17	"			01 1716					901	375
18	Comp.									
19	FU Dra			01 3337					800.	394
20	"			01 4732					800	405
21	Comp								4	
22	FU Dra	must edit name and RA dec only		02 0348					801	400
23	Comp								4	
24	B/D 5(4)			02 19					0	
25	Comp								4	
26	HD 107095	12 4713	+38 2618	02 2605					155	5mo 41
27	Comp								4	

Spectr. Temp. ..... Dome Temp./Hum. −27°C 66·3% Transparency Conditions ....slightly hazy....150

Focus ....6·93.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	P.C. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CD	P.H.	Program	Remarks	Quality
	8.9	1000V 328	1"	10·5	FO	CASS	1800h 47.06	30μ	5184	21		7150 ADU above sky	
	8.7	321								22			
	4 5									23			
	8.7	350	<1"							24			
	9.1	375								25			
										25			
	8.8	394								26			
	9.0	405								27			
	4									27			
	8.1	400								28			
	4									29			
	C									1			
	4									5			
	15.5	3500	<1"	6·45	G8Vp					6	std vel		
	4									7			

154 #5 Sun/Mon

Date 1.198 Feb 8/9 Observers mk: /Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CG812 09/14	HD103095	11 47 13	+38 26 18					4x 2E	67ms 133ms	1000
CC51828	Comp							~~Fe Ar~~ ND2	4s	
29	HD109247	12 28 12	+55 21 00	02 50 16				~~600~~	600	2870
30	"			03 01 08					637	2420
CC51831	"			03 12 50					520	2200
32	Comp.								4	
33	bias(4)			03 27						
34	HD109247			03 28 28					600	~~2870~~
35	"			~~03 49 38~~					600	2200
36	"			03 49 38					644	2670
37	Comp.							"	4	
38	Comp	1990.25						"	4	
39	FU Dra	15 34 45	+62 16 44	04 08 37					800	324
40	"			04 22 37					1013	155
41	Comp							"	4	
42	Bias(4)			4 41						

Spectr. Temp. ..... Dome Temp./Hum. -23°C 66.8%H Transparency Conditions ..... slight Haze 160

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. -3.6°C 70%H

Exp. Mtr.	Seeing	Pwr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10000		645			1800	16u	30u slit		Seeing Test.	Done SW No wind	
						30u	5184A	3		(1st After Reboot of Heuricon's Cepheus)	
2870	1"	802	F2					4		trailed.	
2920								5			
2200								6 (*5)		Started: cable 6. Read out in cable 5. (Fix) — re-set caches, cold start.	
								1			
								1			
~~2200~~.								2			
2200								3			
2670								4			
								5			
								6			
3,24	1"	105	F0					7		240 MM above Sky	
955	<1"							8			
								9			
								1			

161 pg #6

Date 1998 Feb 8/9 Observers MKi/JTy

Emulsion Batches:

Plate No.	Object	R.A. ~~1900~~ 1991.25	Declination ~~1900~~	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC51843	FU Dra	15 3445	+621644	04 4216					836	1000V 378
44	"			04 5636					833	408
45	Comp							Fat ND2	4s	
46	FU Dra			051217					800	394
47	"			052625					802	360
48	Comp							"	4s	
49	FU Dra			054239					800	355
50	Comp								4s	
51	Comp								4s	
52	HD 79886	091136 (1900)	+773400	060718					602	340
53	"	"	"	061806					600	386
54	"	"	"	062826					612	420
55	Comp							"	4	
56/63	FLATS x 8							Jung ND3	~~4s~~	
64	BIAS (4)			0644					0	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . Fine 1.62

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... -40° C 67% RH

Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 378	<1"	10.5	F0	C455 CCD	1800	30u	5184Å	10			
408								11			
								12			
394								13			
360								14			
								15			
355	1"							16			
								17		@ 5484 42 - 00 0200 55 - 00 0318 Telescope East Side	
								18			
1320	1-2"	8.6	F2					19			
1286	1-2"							20			
1400	2"							21			
								22			
								23			12.4K
								1			

163 pg#1 Mon/Tues

Emulsion Batches:

Date 1998 Feb 9/10 Observers LA/JA

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Temp. Exp. Mtr	Spectr. Temp. Se
cc5186⁷/66	✓ Inboard / OUTBOARD							FeAr NO2	4/6		
67	✓ Comp							"	4		
68	✓ HD 30162	30917	+44583	181806					159	2350	
69	✓ Comp							"	4		
70	✓ B/HS(4)			1822					0		
71	comp							"	4		
72	HD44982	6 1948	+822100	182820					900	730	
73	"			184347	alt hand Time ✓				1090	740	
74	comp							"	4		
75	Comp							"	4		
76	EQ Tau	2000 03 48 13	22 18 49	190926					1200	145	
77	Comp							"	4		
78	B/HS(4)			1932					0		
79	Comp		2000					"	4		
80	UX Eri	03 09 52	-06 53 24	193848					1080	293	
81	"	"	"	195729					1080	310	

Spectr. Temp. ..... Dome Temp./Hum. +0.9°C ..73%H Transparency Conditions ..Thin cloud..... 1.64

Focus .....6.93.....

Spectr. Temp. ..... Dome Temp./Hum. ..... CJ 400 0 50 10J4 4 1 CCDFLAT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS CCD	1800h 4706	30u	5184 Å				
								5			
2350		6.16	M2 II					6	NORMALIZATION		
								7			
								1			
								8			
730	1"-2"	9.8	G5					9			
740								10			
								11			
								~~12~~			
145		11.9	G1					12			
								~~13~~			
								1			
								13			
293		10.6	F8					14			
310								15			

16pg 2 Mon/Tues

Date 1998 Feb 09/10 Observers Lu/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5188	comp							FeAr ND 2	
83	UX Eri	03 09 52 (2000)	-06 53 24	20 17 15					957
84	Comp							"	4
85	BIAS(4)			20 35					
86	Comp		-54990					"	4
87	~~HD54475~~ ← Actually HD 1900	7 05 54	-03 43 80	20 39 15					500
88	comp							"	4
89	comp							"	4
90	HD54975	7 05 54	-03 43 00	20 54 47					800
91	"	"	"	21 08 45					800
92	comp							"	4
93	~~HD~~ Comp							"	4
94	HD22484	3 31 46	+00 05 04	21 28 49					306
95	Comp							"	4
96/03	FLATS x 8							TUNG ND 3	4 5
904	BIAS(4)			21 39					

Spectr. Temp
Focus
Spectr. Temp
Exp Mir
500V
304
1050
105
137
4 5

Spectr. Temp. ..... Dome Temp./Hum. −1.1°/77.3% Transparency Conditions ..... part clear 165

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. −1.5°C 78%H

Exp. Mtr.	Seeing	Pwr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1200 l/mm 47.06	306μ	5184 Å	16			
30↓	2"	10.6	F8					17		through clouds	
								18			
								1			
								19			
3050		(8.3	F5)	2' SE				20		[wrong] → the brighter companion in the field	24K
								21			
								21			
905		8.3	F5					22		through clouds	
837								23			
								24			
								25			
4.8K	2"	4.26	F9 IV-V					26	std vel		31K
								27			
								28			17.3K
								1			

No. Xpg#3 Mon/Tues

Date 1998 Feb 9/10 Observers [Rm]/Lq./Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
cc51905/6	Inb/outboard							FeAr ND 4	4/6	cccv
907	Comp							FeAr ND 4	4s	
08	HD22484	3 3146	+000504	214359					321	160
09	Comp							"	4s	
10	Comp							"	4s	
11	HD44990	6 2820	+70825	215348					1200	2015
12	Comp							"	4s	
13	Comp							"	4s	
14	HD 30282	4 4106	+36 3200	222437					270	2.2K
15	Comp							"	4s	
16	Bias (4)			2247					0	
17	Comp							"	4s	
18	HD25361	3 5642	+58 2300	225205					1065	1050
19	Comp							"	4	
20	comp							"	4	
21	HD84441	09 4011	24 14 05	231647					218	5.9K

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ...increasing...cloud.....

Focus .....6.93.....

Spectr. Temp. ..... Dome Temp./Hum. ..... -1.2°C 78.9% H

cd 400 0 50 1024 4 1 CCDFAST

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V				CASS CCD	54.93	306	6400Å	3/4			
								5			
1690		4.28	F9 IV-V					6	Std rel	Cloud + Teal	2K
								7			
								8			
2015	2"	7	F/G					9	Rm cepheid		
								10			
								11			7.7K
2.2K	1-2"	8	F-G					12	Rm Cepheid	medium cloud	
								13			
								1			
								13			
1050	1"	7.30 -8.07	F6Ib-G2Ib					14	Rm cepheid	cloudy too (lower priority use)	
								15			
								16			
5.9K		2.98	G1 II					17			

PG 4 169

Date 1998 Feb 09/10 Observers [Rim]/Lin/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5 1922	comp							FeAr ND 4	4
23/29	flats							Tung ND 5	7
30	BIAS(4)			2330					0

Spectr. Temp. −100.5 Dome Temp./Hum. −1.3/78.9 Transparency Conditions ..... smoothy cloudy/70

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... HDU MAX

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4					CASS CCD	1800 X/mm ~~[illegible]~~	306 μ	6400	18			
	7						5493			19 ~~[illegible]~~			42.3K
	6									1			

PG1\71 Tues/Wed

Date 1998 Feb 10/11 Observers [Vys]./T.../LL.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC579 31/32	Inb / OutBoard							12 No NO5	4/2
33	Comp							Red NO 5	4s
34	HD 20162	30917	+44 5633	182422					239
35	Comp							11	4s
36	B/AS(4)			18 30					0
37	Comp							11	4s
38	Vys 395	02 3014	+74707	183432					1330
39	Comp							11	4s
40	Comp							11	4s
41	Vys 430	03 4247	+02 2910	190043					778
42	Comp							11	4s
43	Comp							11	4s
44	Hp 36395	5 2618	-03 4100	191733					1470
45	Comp							11	4s
46	BIAS(4)			1943					0

Spectr. Temp. −100,4 Dome Temp./Hum. 12.3°C 73% Transparency Conditions PART. Cloudy 172

Focus 6.87 Approaching FULL moon

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 41 CCDFMT

Exp. Mtr.	Seeing	Pt'r. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CHSS CCD	1800/m 47.74	306	5300Å	3/4	focus test		
								5			
34k		6.16	M2III					6	NORMALIZATION STAR		
								7			
								1			
								8			
408	1-2"	10.7	M2					9	AC+20 821-180	90 HDU ABOVE SKY	
								10			
								10		5 HDU above sky	
270	1-2"	11.2	M0					11	AC+02 2282-51	Cloud at end	
								11			
								12			
1580	1-2"	7.97	M1					13	MARCY STD	+8.52	
								14			
								1			

PG 2 173 Tues/Wed

Date 1998 Feb 10/11 Observers [Vys]/Lu/Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc51947	Comp							FeNe ND 5	4	1000
48	Vys 410B	02 47 12	55 02 32	19 49 48					1648	470
49	Comp							"	4	
50	Vys 410A	024910	550214	201923					1175	500
51	comp							"	4	
52	Comp							"	4	
53	Vys 416A	030825	+574808	204707					1200	360
54	Comp							"	4	
55	Vys 416B	"	"	210856					1258	333
56	Comp							"	4	
57	BIAS(4)			21 31					0	
58	comp							"	4	
59	Vys 424	033354	+545334	213437					1367	444
60	comp							"	4	
61	Comp							"	4	
62	Vys 226	03 49 06	53 16 23	220210					1430	15

Spectr. Tem
Focus
Spectr. Tem

Spectr. Temp. −100.4 °C Dome Temp./Hum. 1.4/74.9 Transparency Conditions ... fairly cloudy ... 1.7 clearing by 21 EST

Focus 6.87

Spectr. Temp. ... Dome Temp./Hum. +0.2°C 85% lt cl

Exp. Mtr.	Seeing	Pos Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000				CASS CCD	1800h 17.74	306	5300Å	14		AC+55 19225	
470	~~1"~~ 2"	11.2	MO					15		Funke one to NE OK Cloudy 50 AOU HAZE SKY	
								16			
500	1-2"	10.5	MO					17		AC+55 19224	
								18			
								18			
360	1-2"	10.0	MO					19		South one AC+58 20564	
								20	(well separated)	Both A&B look to be equal Brightness	
333	1-3"	10.0	MO					21		AC+58 20565	
								22		Δα −00 0020 Δδ −00 0051	
								1			
								23			
344	2	11.0	MO					24		AC+54 2311-89	
								25			
								26			
380		10.5	MO					27		AC+53 2250-45	

PG3175

Date 1998 Feb 10/11 Observers [Vys]/Lu/Tn

Emulsion Batches:

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.....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS1963	comp							FeNE ND5	4
64	Comp							"	4
65	Vys238	06 3257	+71 5924	223214					462
66	comp							"	4
67	BIAS(4)			2241					
68	comp							"	4
69	HD95735	10 57 54	36 38 00	22 46 39					844
70	comp							"	4
71/79	FLATS x 9							TUNG ND3	4s
80	BIAS (4)			2311					0

Spectr. Temp

Focus.....

Spectr. Temp

Exp. Mtr

Spectr. Temp. −100.4°C Dome Temp./Hum. −0.1 / 85.4 Transparency Conditions ..... fairly clear 17.5.

Focus ..... 6.83 ..... Then Foggy

Spectr. Temp. ..... Dome Temp./Hum. −0.9 93.5% H

Exp. Mtr.	Seeing	Pic Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1800/mm 47.74	36	5300	28			
								28			
121	2"-3"	11.0	MO					29	AC+72 3338	cloudy foggy	
								30			
								1			
								5			
840	2"-3"	7.48	M2					6	Marcy Std Vel.		
								7			
								2			13k
								1			

Pg#1 1TT FRI/SAT

Date 1998 Feb 13/14 Observers MK/JTG

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5198 1/82	Inboard / out Board							~~GG~~ ND2	4/6
83	BIN 5(4)			18 20					0
84	Comp								4s
85	HD23300	3 3859	+45 2205	18 2326					109
86	Comp								4s
87	Comp								4
88	HD22484	3 31 46	000504	18 3248					28
89	Comp								4
90	Comp								4
91	EQ Tau	03 48 13 (2000)	+22 18 49	18 44 38					175
92	Comp								4
93	EQ Tau	"	"	19 16 19					140
94	Comp								4
95	Comp								4
96	HD 54975	7 05 54 (1900)	-03 43 00	19 48 10					800
97	"			20 01 55					800

CCD Spectr. Tem Focus ... 6 Spectr. Tem

Exp. Mtr.	
1000 V	
1.2K	
6.6K	
205	
130	
7%	34%
9%	

CCD
Spectr. Temp. −100.1°C ... Dome Temp./Hum. −4.0°C 35.4%H Transparency Conditions ... Mostly clear → cloudy ... FK

Focus ... 6.94 ...

Spectr. Temp. ... Dome Temp./Hum. −5.7°C 60.5%H

CD 400 0 50 1024 + 1 CCOFMT

Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V						306.	5184Å	3/4	focus test		
								1			
								5			7K
1.2K		5.66	B6 V					6	1/sam		
								7			
								7			
G.6K	4"	4.28	F9 IV-V					8	stitled		3.5K
								9			
								9			
205	2¼"	11.9	G1					10		±20Å/mm above sky very cloudy by end	
								11			
130								12			
								13			
								13			
700	3/4"-2"	8.3	F5					14		GUIDED using AT, window	
900								15			

1998 p942 Fri/SAT

Emulsion Batches:

Date 1998 Feb 13/14 Observers Inki / Ita

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC51998	Comp							Feat IN22	4s
999	BIAS (4)			2016					0
52000	HD 54975	70554	-034300	201816					800
01	"			20 3154					600
02	Comp							"	4
03	Comp							"	4
04	EQ Tau	edit w/ orig 3 4813	+221849	204750					1200
05	" "	edit.		21 0827					1200
06	Comp.			21 3104				"	4s
07	EQ Tau	edit	"	21 3104	edit Exp.				
08	Comp							"	4s
09	EQ Tau	3 4813	221849	214553					1200
10	"	"	"	220619					1218
11	Comp							"	4
12	BIAS (4)			2228					0

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..PART clear now..... 180

Focus ....6.91.....

Spectr. Temp. ..... Dome Temp./Hum. ....-7.2°C 61.3%H

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASSCCD	1800/m 47.06	306μ		15			
								1			
880	2"-4"	8.3	F5					16			
								17			
								18			
								18			
205		~~4.7~~	~~G1~~					19		Brighter Star ~2' TO SE OF EQ TAU	
203								20.			
								21			
							(22)	~~23~~	Readout in 20		
								23			
92	5"	11.9	G1					24		20 AU above sky	
120								25			
								26			
								1			

18/pg#3 FAi/SAT

Emulsion Batches:

Date 1998 Feb 13/14 Observers MKi/JTs

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC52013	Comp							FeAr NO2	4s
14	HD79886	9 11 36	+77 3400	22 51 59					946
15	"			23 08 20					900
16	Comp							"	4s
17	HD79886	"	"	23 29 11					1007
18	Comp							"	4
19	Bias (4)			23 48					0
20	Comp.								
21	HD 95660	10 57 24	+30 58 00	23 57 48					600
22	"			00:08 29					604
23	Comp.								4
24	HD 95660			00:21:55					600
25	"			00:32:39					600
26	Comp.							"	4
27	Comp							"	4

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Fine .....

Focus ..... 6.94 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... -8.7°C 62.3%H

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Ptg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		1000V				CASS CCD	1800 l/m 47.06	30μ	5184A	5		FCH source still on	
		980	4"	8.6	F2					6		Δλ +00 0017 Δδ -00 0057	
		1020								7			
										8			
		1070		8.6	F2					8		Source OFF now After Reboot of Cyclops	700
										9			63K
										1			
										10			
		1005								11			
		1140								12		Lamp stays on.	
		~~1155~~								13			
		1155								14			
		1124								11			
		~~1130~~								15			
										16			

183 pg# 4 Fri/SAT

Emulsion Batches:

Date 1998 Feb 13/14 Observers mki/JL

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS20 28	HD109247	12 28 12	+55 21 00	00 49 45					605
29	"			01 00 12					603
30	"			01 10 36					614
31	Comp							Fe Ar NO2	4s
32	BIAS(4)			01 24					0
33	HD109247	"	"	01 24 11					600
34	"	"	"	01 34 35					600
35	"	"	"	01 44 56					648
36	Comp							"	4s
37	HD109247	"	"	01 57 54					616
38	"	"	"	02 08 39					605
39	"	"	"	02 19 14					600
40	Comp							"	4s
41	Comp							"	4s
42	F4 Dra	15 34 56 (1941.25)	62 16 44	02 36 43					900

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Fine .....

Focus 6.94 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion (C2)	P.H.	Program	Remarks	Quality
1000V 1124	4"	8.3	F2	C455 CCD	1800 l/m 47.06	306	5184Å	17			
1147								18			
1187								19			
								20			
								1			
1100								21			
1160								22			
1290								23			
								24			
1092								25			
1108								26			
1097								27			
								28			
								28			
158								29		Weak.	

185 pgs 5

Date 1998 Feb 13/14 Observers mk./Jm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Sup Mtr.
		1997.25								
cc52043	FU Dra	15 34 56	+62 16 44	02:52:32	← fix				926	165
44	Comp			~~03:12:10~~				FeAr ND2	4	
45	FU Dra.			03:12:03					900	154
46	"								970	500
47	Comp								4	
48	bias(4)			0346					0	
49	Comp								4	
		1900								
50	HD136924	15 18 12	+16 37 00	035544					480	726
51	"			040414					480	687
52	"			041257					480	—
53	Comp								4	
54	HD136924			~~042238~~					480	574
55	"			043106					602	510
56	"			044139					480	620
57	Comp								4	
58	HD136924			045149				5	37	636

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ok

Focus 6.74

Spectr. Temp. ..... Dome Temp./Hum. -10.9°C 66%H

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	PV. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	935	665	~4"			CASS CCD	1800h 47.06	306u	5184Å	30	(wrote in 29)		
	4									30			
	900	154								5		re-foussed	
	930	~300								6			
	4									7			
	0									1			
	0									9			
	48.	726	4"	825	G5					10		OU Ser	
	1480	687								11			
	480	—								12			
	4									13			
	45	674								14			
	660	880								15			
	480	620								16			
	4									17			
	337	636								18			

187 pg #6

Emulsion Batches: .....

Date .1998.Feb.13/14.... Observers .N.K.T.Ta..... .....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc52059	HD136924	15 18 12	+16 37 00	050108					548
60	"	"	"	051043					480
61	Comp							RA ND2	4s
62	BIIS(4)			0520					0
63	Comp							"	4s
64	HT Vir	2000 13 46 07	+50 65 7	052408					600
65	Comp							"	4s
66	Comp							"	4s
67	FO Vir	2000 13 29 47	+01 05 46	05 3947					328
68	"	"	"	05 45 38					340
69	"	"	"	05 51 57					352
70	Comp							"	4
71	Comp							"	4
72	HD144579	1900 16 01 30	+39 24 00	060341					370
73	Comp								

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..OK.....

Focus .....6.94.....

Spectr. Temp. ..... Dome Temp./Hum. −11.8°C 66.8%H

Exp. Mtr.	Seeing	Pltg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
675				CAS	1300 4706	306u	5184A	19			
578	3"4"							20			
								21			
								1			
								21			
1585		7.2	G0					22			900
								23			
								23			
1920								24			
1970								25			
1940								26			
								27			
								27			
2.6k	4"	6.6	G8V					28	stdvel		
								29			

189 P7

Date 1998 Feb 13/14 Observers M.K.I./T.G.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CG 812 F/18	HD144579	160130	+392400	06 14				4x	67
19/20	~~BIAS(4)~~							2x	133
CC52074	BIAS(4)			0612					0
75/83	FLATS	x 9						JUNG N03	45

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....6.94.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								..	Seeing test		
								1			
						306u	5184Å	2			12ZK

19 Pg #1 SAT/SUN

Date 1998 Feb 14/15 Observers Gld/Tn

Emulsion Batches:

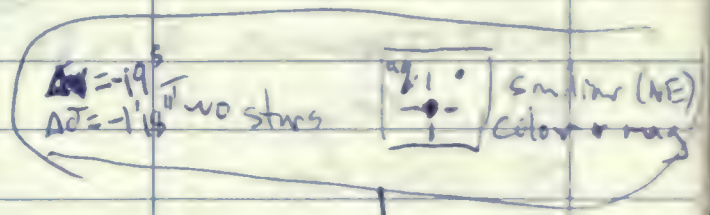
Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC520 84/85	Inboard/outboard							FEA/ND2	4/7
86	Comp							"	45
87	HD 23300	3 38 59	+45 22 05	16 16 27					55
88	Comp							"	4
89	BIAS(4)			16 21					0
90	Comp							"	4
91	HD 4388	00 4 06	+30 25 00	18 26 09					509
92	Comp							"	4
93	HD 4372 edit	00 41 00 edit	+30 24 00	18 37 12					394
94	Comp							"	4
95	Comp							"	4
96	RXSJ00101+4115	01 01 25 2000	+41 15 03	18 50 12					1800
97	comp							"	4
98	RXSJ01014115	"	"	19 22 27					1810
99	comp							"	
100	RXSJ0101	"	"	19 54 26					1801

Spectr. Temp. ..... Dome Temp./Hum. -7.0°C 42%H Transparency Conditions Fine

Focus 7.00

Spectr. Temp. ..... Dome Temp./Hum. ..... CJ 400 0<D 1024 4 1 CCD FAST

Exp. Mtr.	Seeing	P.V. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10000				~~1800~~ CASSCCD	1800 l/m 4706	306u	5184Å	3/4			
								5			
7K								6			
								7			
								1			
								8			
3K	3"	761	~~G5~~					9	Shuvel	NE one	45K
								10			
25K		736	G5					11		SW one of pair.	
								12			
								13			
296								14			
								15			
296								16			
								17			
210								18			



193 1998 Sat/Sun

Date 1998 Feb 14/15 Observers Gld/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 52101	comp							FeAr ND2	4
02	RXSJ 0101+4115.	01 01 25 (2000)	+41 15 03	20 26 26					1800
03	Comp							"	4
04	BIAS (4)			20 58					0
05	Comp							"	4s
06	FF Cnc	08 29 40 (2000)	+17 17 02	21 04 26					1800
07	Comp							"	4
08	FF Cnc	"	"	21 36 35					1800
09	Comp							"	4
10	FF Cnc	"	"	22 09 42					1800
11	Comp							"	4
12	BIAS (4)			22 41					0
13	FF Cnc	"	"	22 42 41					1800
14	comp							"	4
15	FF Cnc	"	"	23 19 00					1800
16	Comp							"	4

Spectr. Temp
Focus
Spectr. Temp

Exp Mtr.	S
100	
161	3
315	2
241	
252	
251	2
278	3

Spectr. Temp. ..... Dome Temp./Hum. -8.9°, 45.3H Transparency Conditions ... good 194

Focus ... 7.00 .....

Spectr. Temp. ..... Dome Temp./Hum. -10.5°C 52.1%H

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000				CASSCCD	1800 l/m 47.06	30u	5184Å	19			
161	3"-4"	11						20			
								21			
								1			
								22			
265	2"							23		> 100 40Å above sky	
								24			4-3K
241								~~25~~	WRITTEN	in wrong col (23 c8)	
								24			
252								26			
								27			
								1			
281	2-3"							28			
								~~25~~			
328	2"							0			
								7			4-3K

195 pg#3

SAT/Sun

Date 1998 Feb 14/15 Observers Gld/Tom

Emulsion Batches:

Plate No.	Object	R.A. 1900 / 2000	Declination 1900 / 2000	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC52117	FF Cnc	08 2940	+171702	234737					1800
18	Comp							1 Ar ND2	4s
19	BIAS(1)			00 19					0
20	FF Cnc	"	"	00 2026					1913
21	comp							"	4s
22	FF Cnc	"	"	00 5426					1821
23	Comp							"	4
24	FF Cnc	"	"	01 2704					1803
25	Comp.							"	4
26	BIAS(4)			01 58					0
27	FF Cnc.	"	"	02 00 09					1820
28	Comp								4
29	Comp								4
30	HD90861	1900 10 2418	+290500	02 3440					372
31	comp								4
CG81224/24	HD103095							4x	67ms
CG81225/26								2x	133

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .Fine - increasing cloud. 196

Focus ....7.00.....

Spectr. Temp. ..... Dome Temp./Hum. ...-10.6°C 53.6%H

Comparison Field	Comparison Exp.	Exp. Mtr.	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		1000V ~420	1.2"	11		CASSCCD	1800 l/m 47.06	306u	5184Å	8			
										9			
										1			
		~420 ~~[illegible]~~								10			
										11			
		368	1"							12			
										13			
		313								14		Clouding in...	
										15			
										1			
		310								16			
										17 18			
		1688	2"	7.2	K2 [illegible]					19	Std Vel		
										20			
												Seeing too t.	
												Reject to change Exp Header.	

197 Pg #4 SAT/Sun

Date 1998 Feb 14/15 Observers G.Gl. / T.Ty

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52132	Comp							15Ar ND2	4
33	HD103095	11 47 13	+38 26 10	07 50 57					47s
34	Comp								
35/40	FLATS	x 6			Red Filter FOR Comparison Using OG560 ORDER separation			TUNG ND3 15Ar FOR stellar ND5	4s
41	comp							"	4s
42	HD121409								66s.
43	Comp							"	4s
44	"~~Comp~~ pgrcloud-1"							"	4s
45	pgrcloud-1	14 44 01 (2000)	+48 40 52	03 50 28					360s
46	"			≈ 03 57 only approximate,					840s
47	Comp.							"	4s
48	Comp								4s
49	pgrcloud-2	14 71 90	+48 54 47	04 19 09					1200s
50	COMP							"	4s

Spectr. Temp.
Focus
Spectr. Temp.

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Part Cloudy .....

Focus ..... 7.00 ..... 7.20 for 150l/m grating

Spectr. Temp. ..... Dome Temp./Hum. ..... -10.5°C 49.5%H 400 0 50 1024 4 1 CCDFmT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASSCCD	1800l/m 47.06	306μ	5184A	21			
2650	1-2"	6.45	G8 Vp					22	std vel		2k max
								23			
								2			
2nd Order				CASS CCD	150 l/m/mm 23.39	306μ	~6008A	5		425 0 50 1024 4 1 CCDFmT	
~~2500~~								5			
~500								6		28.7k max	
								7			
								8			
mov 201	a 1-2"	~12.6	B-R 0-1					9			
S16								~~9~~		200 ADU above sky	
								10			
								11			
61S								12			
								13			

1998 Feb 05

SAT 1540

Date 1998 Feb 14/15 Observers Gld. I.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 57151	BIAS(4)			440					0
52	Comp	2000					RG 60 Filter	Fe Ar NO5	4s
53	pgm cloud-4	143920	+490033	045026					600s
54	comp							"	4s
55	comp							"	4s
56	pgm cloud-5	14 38 34	+48 47 27	05 04 51					600s
57	comp							"	4s
58	comp							"	4s
59	Tyc 4193-691	164231	+642137	051943					605
60	Comp							"	4s
61	BIAS(4)			0531					0
62	comp							"	4s
63	Tyc 4190 1263	16 32 00	61 57 11						600s
64	comp							"	4s
65	comp							"	4s
66	Tyc 4194 2188	16 49 45	+640717						900s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ok again 200

Focus ... 7.20 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 425 0 50 1024 41 CCOFUT

Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320 Volts					150 M 2329	306	6000A	1		OG 560 Filter Stellar beam	
								14			
826		11.5	B-R 0.6					15			
								16			
								17			
615	1"							18			
								19			
								20			
616	1-2"							21		Δx +00 00 07 Δs -00 00 15	
								22			
								1			
								23			
598								24		cloudy n.	
								25			
								26			
2660								27		"	

Pg #6 Sat/Sun

20

Date 1998 Feb. 14/15 Observers GH/JH

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Mtr. (Pos.)	S
cc 52167	comp						RG 660 filter	TeAr NDS	4s		
68	comp.							"	4s		
69	HD 126660			06 24 36					21		
70	HD 123299	14 01 41	+64 51 14	06 27 39					23	520	
71	HD 120315			06 31 15					18		
72	HD 116842	13 21 13	+55 30 32	06 33 23					85	525	
73	HD 113139	12 56 26	+56 54 19	06 40 44					99		
74	HD 103287	11 48 34	+54 15 03	06 44 37					37	600	
75	HD 115604	13 13 04	+41 05 57	06 48 17					78		
76	109358			06 51 14					57		
77	Comp							TeAr NDS	4s		
78/83	FLATS x 6					OG 560	Filter in	TeAr NDS	1s		
84	BIAS (4)								0		
	~~FLATS~~ x										

Spectr. Temp. ..... Dome Temp./Hum. 10.3° +52.1H Transparency Conditions ... P. cloudy ... 202

Focus ... 7.20 ...

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp.	Exp. Mtr. 1000V	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4/6						1401m 23.29	506μ	6000Å	28			
	4/4									5		one comp per star ↓	
	21									6.		Rect pRnBeam	
	23	520								7			7K
	18									8			7.5K
	85	525								9		cloud	
	99									10			5K
	37	600								11			
	98									12		Pts of solar	
	52									13			
	4/5									14			
	15									~~15~~	2ci		1.4K
	18									1			

pg#1 Sun/Mon

203

Date 1998 Feb 15/16 Observers [Vys]/MKi/LTh

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5218586	Inboard/out Board							FeNe N05	4/2
cc5218587	Comp							"	4s
88	Vys 396 A? Bright	023052	+062457	184010					120s
89	"			184306					339
90	Comp							"	4
91	BIAS(4)			185112					0
92	Vys 396B	023052	+062457	185238					1935
93	Comp							"	4s
94	Comp							"	4s
95	Vys 401A	023856	+103707	193128					1638
96	Comp							"	4
97	Comp							"	4
98	Vys 419C	031820	+232509	200505					1870
99	Comp							"	4
cc52200	Vys 419A *	"	"	203925					1302
01	Comp							"	4

CCD Spectr. Temp

Focus.....

Spectr. Temp

Exp Mtr.	S
1000	
844	
634	
247	
245	
158	
245	

CCD
Spectr. Temp. -100.5°C Dome Temp./Hum. -4.7°C 73%H Transparency Conditions Fine, but Eastwind 20↓

Focus 6.98

Spectr. Temp. ..... Dome Temp./Hum. -5.7°C 77.0%H 400 0 50 1024 4 1 CCDFINT

[Aperture 103.17 MP ↓] MAX AOG

Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V				CASS CCD	47.74	306μ	5300Å	3/4	focus		
								8			
2.4K	1"	5.9	KO					9			2K
6.3K		"	"					10			5.2K
								11			5.7K
								1			
247	1-½"	11.66	M					12		Δα -00 00 05 Δδ +00 00 45 70 ADU above SKY	
								13			
								14			
245	2"	10.98	MO					15	AC+11 20-183	Δα -00 00 11 Δδ -00 00 54 (90 ADU above SKY)	
								16			
								17			
156	1-2"	11.89						18	Faint SE companion	60 ADU above SKY	
								19			
265	2"	10.38	MO V					20	* Mainly the South, Brighter one of Close pair UGS4119A/B		
								21			

Pg#2

205

Sun/Mon

Date 1998 Feb 15/16 Observers [Vys]/[Tu]/Mike

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc52202	Vys 419B	031820	+232509	210330					1399
03	Comp							RG6 ND5	4s
04	BIAS(4)			2130					0
05	Comp							"	4s
06	HD 36395	052618	-034100	215609					458
07	Comp							"	4s
08	Comp							"	4s
09	*BD-02 3000	095313 1900	-034118	220639					967
10	Comp							"	4s
11	Comp							"	4s
12	BD-02 3000	095313 2000	-034118	223529					900
13	Comp							"	4s
14	BD-02 3000	"	"	225323					900
15	Comp							"	4s
16	BD-02 3000	"	"	231018					889
17	Comp							"	4

wrong star @ 1900 epoch, not 2000 ✓

* Probably BD-03 2823

CCD Spectr. Temp

Focus ....

Spectr. Temp

Exp Mtr.

1360

303

955

946

910

CCD
Spectr. Temp. — 100.5°C. Dome Temp./Hum. −5.7°C 77%H Transparency Conditions Fine... slightly hazy....

Focus 6.98.....

Spectr. Temp. ..... Dome Temp./Hum. −5.7°C 74%H

CD 400 0 50 1024 +1 CCDFast

Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V 140	1-3"	~105	MOV	CASS CCD	1800b 4774	306	5300Å	22	750 ADU Above Sky	Sometimes A & B not well separated.	
								23			
								1			
								24			
1360	2"	7.97	M1					25	Marcy Stel vel V=8.52		
								26			
								27			
303	2"	9.6 ~~10.54~~	~~MO~~					28	~~not it~~ ~~Vgs 560~~	Looks ~~kind~~ like	
								29			
		~~10.54~~	~~1140~~					29			
255	2"	10.54	MO					30	Vgs 560	Δα @ 00 03 Δδ -00 00 27 780 ADU above sky	
								31			
296								11			
								12			
360								13			
								14			

Pg #3

207

sun/mon

Date 1998 Feb 15/16 Observers [Vyas]/Mk/Tan

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52218	BIAS(4)			2326					0
19	Comp							FeNe ND5	4s
20	BD +01 2447	102349	+012136	233043					982
21	Comp							"	4s
22/28	FLATS x 7							TUNG ND 3	4s
CC52229	Comp							Fe Ar ND2	4s
30	HD79886	9 11 36	+773900	235845					901
31	Comp.								4
32	Comp.								
33	HD 169247	12 28 12	+55 21 00	00:32:24					600
34	Comp								4
35	HD 169247	"	"	00 48 54					600
36	Comp.								4
37	Comp.								
38	HD 79886	9 11 36	+77 39 00	01 09 04					900

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... slightly hazy 208

Focus ... 698 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V				CASSCAD	1800 h 47.74	30u	5300 Å	1			
	.	-						14			
760	3"	9.65	M2					15	Murray Std	+8.36 v helio	
								16			
								2			13.5K
					1800 h 47.06	30u	5784 Å	8	✓	-5 -40 offsets	
1590								9			
								10		Fe ar.	
								11			
~4450								12		+18 +6	
								13			
& 16000	1"							14			
								15			
								15			
1445								16	seeing variable	Dome partially obscuring first minute.	

pg#1 Sun/Mon

209

Date 1998 Feb 15/16 Observers Mki/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
✕ 52239	Comp.							FEAr NO2	4
40	Comp.								4
41	HD 109247	12 28 12	+55 21 00	012939					600
42	Comp							"	4
43	Comp				Identified as GSC 4481-1726			"	4
44	X FU Ori	START To SSW of FU ORA 1991.25 153446	+621644	Note 014809		153438	+621350 Tn Feb 17		900
45	Comp							"	4
✕ 46	BIAS(4)			~205	✕				0
47	FU ORa	153446	+621644	020741					901
48	Comp							"	4
49	Comp								4
50	HD 109247	12 28 12	+55 21 00	022910					631
51	Comp							"	4s
52	Comp							"	4s
53	FU Ori	153446	+621644	024737					900
54	Comp							"	4s
55	BIAS(4)			3 04	✕				0

Spectr. Temp. ..... Dome Temp./Hum. -5.6°C. 80%H Transparency Conditions ... Fine 20

Focus ..... 6.98 .....

Spectr. Temp. ..... Dome Temp./Hum. -6.2°C. 84.3%H

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000				CASS CCD	1800 l/mm 47.06	30μ	5184 Å	17			
								17			
1635	1"-2"							18			
								19			
								19		~~Unknown~~ ?	
207	1½"-2"							20		STAR 554 • FFa ORA ~ 2-3' distant	
								21			
								1			
785	1½"	11						22		Δα +00 00 30 Δδ +00 01 54	
								~~23~~ 23			
1600								24		Δα +00 00 04 Δδ -00 00 18'	1K
								25			
								~~26~~			
185	2"	105	60					26		Δα +00 00 18 Δδ +00 01 36	
								27			
								1			

pg#5 Sun/Mon

211

Date 1998 Feb 15/16 Observers Mk. J.H.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
~~cc52~~ 56	Comp							Feathr NO2	4s
57	HD 109247			031013					600
58	Comp							"	4s
59	Comp.							"	4
60	FU Dra	19h25 15 3446	+62 16 44	032609					925
61	Comp							"	4
62	Comp							"	4
63	HD 109247	12 28 12	+55 21 00	034635					
64	Comp								4
65	B/D's (4)			0403					0
66	Comp	19h25							4
67	FU Dra	15 3446	+62 16 44	040938					900
68	comp.							"	4
69	comp.							"	4
70	HD 109247	12 28 12	+55 21 00	043455					611
71	"	"	"	044553					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Increasing cloud 22

Focus ... 6.98 .....

Spectr. Temp. ..... Dome Temp./Hum. +5.9°C 85% H

Comparison Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4	4					CH55 CCD	1800l 47.06	306u	5784Å	28			
22	4												
6	6	1100	1"2'							29		0 -27	
6	15									30			
n	6									4			
	925	141	1"2'							5		cloud	
1	4									6			
4	4									6			
			2							7			
	4									8			
	0									1			
	4									9			
	9	131								10			
1	2									11			
v	4									11			
	6	1020								12			
		9.20								13			

213 pg#6 Sun/Mon

Date 1998 Feb 15/16 Observers MK/TH

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52272	HD109247	12 28 12	+55 21 00	04 56 00					60s
73	Comp							Fe4 NO2	4s
74	Comp							"	4s
75	HD103095	11 47 13	+38 26 10	05 10 59					60s
76	Comp							"	4s
77	Comp							"	4s
78	HD109247	12 28 12	+55 21 00	05 36 07					60s
79	~~Comp~~ "			05 36 40					60s
80	"			05 47 12					60s
81	Comp								4s
82	HD109247			05 59 07					60s
83	"			06 10 27					60s
84	"			06: 21:32					60s
85	Comp							"	4s
86/91	FLATS x 6							TUNG ND3	4s
92	BIAS (4)								0

CCD
Spectr. Temp. -100.5°C Dome Temp./Hum. -5.9°C 85.1% Transparency Conditions Increasing cloud 214

Focus 6.96

Spectr. Temp. Dome Temp./Hum. -5.9°C 85.3% H
CA

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 875	1"-2"			CASS CCD	1800 l/m 47.06	306μ	5184Å	14			
								15			B+K
								5			
1K	2"	6.45	G8Vp					16	Std Vel		2K
								17			
								17			
1050								18			
1080								19			
1085								20			
								21			
1090								22			
1086								23			
								24		Bright Dawn Sky	
								25			
								2			11K
								1			

pg#1 Sunlinon

215 1998 Feb 27/28 Hjx/Tm

Date ..... Observers .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD2293/94	Inboard/outboard							FLAT ND 3	4/4
95	BIAS (4)			2245					0
96	Comp								
97	HD76943	8 54 09	+42 10 44	22 41 48					59
98	Comp								
99	Comp							FLAT ND 4	4
CCD2300	FK Com	13 30 47	+24 13 59	22 58 30					1200
01	Comp							"	4
02	FK Com 1	"	"	23 23 45					1799
03	"	"	"	23 46 37					1215
04	Comp							"	4
05	BIAS (4)			00 08					0
06	FK Com			00 10 32					1271
7	Comp							"	4
8	Comp							"	4
9	HD113226	12 57 12	+11 29 46	00 41 11					376

Spectr. Temp. −100.8°C Dome Temp./Hum. 0.0°C / 78% Transparency Conditions ... cloudy/partly 246

Focus ... 6.85

Spectr. Temp. ... Dome Temp./Hum. ... CO 400 0 50 1024 4 1 CCOFMT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1800l/mm 56.35	306μ	5114 66008	3/4	focustest		
				Tgrating	56.35			1			
								5			
1.7K		397	F5 V					6		Nominal za Fa star	
								7			
								7		west and slightly south of close 1" pair	
170	3"6"	8	G5 II					8		slightly fainter too.	
								9		AIR MASS 1.09 strongest FeA line	
282								10		saturated slightly	
316								11			
								12			
								1			
371	4"-5"							13			
								15			
								17			
6.7K	5"	2.83	G8 III					16	SP Type Standard		

217 P42 Sun/moon

Date 1.9.98. Feb 22/23. Observers ..HJ x I.Tn.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52310	Comp							FeAr NO4	4s
11	Comp							"	4s
12	HD 103095	11 47 13	+38 26 10	00 53 07					735
13	Comp							"	4s
14	Comp							"	4s
15	HR 5191	13 47 33 2000	+49 18 49	01 14 16					77
16	"			01 16 33					58
17	Comp							"	4
18	B/HS(4)			01 20					0
19	Comp								4
20	HD 87901	10 03 03	+12 27 22	01 29 46					106
21	Comp								4s
22/30	FLATS x 9							TUNG 1405	7s
31	~~Comp~~ B/HS(4)			03 02					0
	~~Ek Comp~~	~~13 30 47~~	~~+24 13 59~~						

Spectr. Temp. ..... Dome Temp./Hum. −0.6°C 74%H Transparency Conditions .. Cloudy 218

Focus ... 6.85 .....

Spectr. Temp. −101.7°C .. Dome Temp./Hum. −0.9°C 77.8°C

~~What NWS is forecasting~~ ~~H 23 BST P 1019.6 A 10000~~

400 0 50 1024 9 1 CCD FMT

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000				CASS CCD	1800 l/m 56.35	30u	6600Å	17			
								18			400 MAX
1.4K	4"5	6.45	G8V					19	Std/vel		12K
								20			
								21			
8.6K		1.86	B3V					22	Telluric	Std Low Air Mass	3K
13K								22			
								23			
								1			
								23			
11.5K								24	Telluric	Std. 1.23 Air mass	6.3K
								25			
								2			12K
								1			

219 pg#1 Mon / Tues

Date . 1998 . Feb 23/24 . . . Observers . Hj. x. / . T. x. . . . . .

Emulsion Batches: . . . . . .

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD523 32/33	Inbound / OUTBOUND							FeAr ND4	4/6
34	Comp							"	4
35	HD30138	4 3950	+400751	184523					174
36	Comp							"	4
37	BIAS(4)			1852					0
38	Comp							"	4
39	HD245770	5 3242	+261600	185733					601
40	"	"	"	190758					659
41	Comp								4
42	Comp								4
43	HD272464	3 3146	+000504	192446					369
44	Comp								4
45	BIAS(4)			1934					0
46/50	FLATS x 5							THAR ND5	7s
51	Comp							THAR ND4	4s
52	HD245770	5 3242	+261600	195403					640

CCD Spectr. Temp. −100.3 °C Dome Temp./Hum. +2.2°C 64%H Transparency Conditions Pmost Clear 220

Focus 6.85

Spectr. Temp. Dome Temp./Hum. +1.4°C 65%H

400 0 50 1024 1 1 CCD FAST

Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V				CASS CCD	1800 L 56.35	30μ	6600Å	3/4			
								5			14K
2.5K		5.97	GG III					6	NO NORMALIZATION		3K
								7			
								1			
								7			
406	2"-3"	8-9	B0					8		Hα em MAX 700Å	
								9		cloudy	
								10			
								10			
3K		4.78	F9 IV-V					11	std vel	cloudy	
								12			
								1			
								2			13K
								13			
257		8-9	B0					14			

22 Pg#2 Mon/Tues

Date 1998 Feb 23/24 Observers HJK/JTA

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52353	HD245770	5 32 42	+26 16 00	20 05 03					600
54	"	"	"	20 15 37					1200
55	Comp							Fe4 ND4	4s
56	HD245770	"	"	20 58 53					906
57	"	"	"	20 55 41					780
58	"	"	"	21 08 37					1092
59	Comp							"	4s
60	HD245770	"	"	21 31 27					602
61	Comp							"	4s
62	BiHS(4)			21 44					0

Spectr. Temp. ..... Dome Temp./Hum. +1.2°C 63.9% Transparency Conditions Part. Cloudy 222

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. ..... cd

~~Wind NW 40 25 mi/hr G 35 MPH~~
~~Press = 101.1 kpa to [illegible] Rising.~~

400 0 5-0 1024 4 1 CCD Fwt 7

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
	60	10000 209	2"	8-9	BO	1460 l/m 56.35°	~~GRISM~~ GO	30μ	6600Å	15			
	120	205								16			
	45									17			
	900	217								18			
	780	205	3"							19			
	1092	203								20			
	45									21			
	1652	100								22			
4	45									23			
	0									1			

223 pg #1 Tues/Wed

Date 1998 Feb 24/25 Observers H.J.X./J.G.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 23 63/64	Inbound/outBound							Fea-N104	4/6
65	BHS(4)			2217					0
66	Comp							"	4s
67	HD71148	8 20 38	+45 59 25	22 29 56					540
68	Comp							"	4
69	Comp							"	4
70	BD+33 1646B	8 02 34	+33 06 25	22 36 10					1418
71	Comp							"	4
72	BD+33 1646A	"	"	23 01 56					1184
73	Comp							"	4
74	BHS(1)			2323					0
75	Comp							N104	4
76	HD95735	10 57 54	+36 38 00	23 39 18				Fea-N105	877 12s
77	Comp								
78	Comp							11	4

CCD
~~Spectr~~. Temp. −100.9 °C Dome Temp./Hum. 0°C 75%H Transparency Conditions Part Clear 224

Focus 6.85

Wind 22 kms/hr @ 23EST NNW
Press 101.10 kPascals ↑

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Prism Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1800 l/mm 56.35	306	660ΔP	3/4			
								1			
								5			1.5K
2.9K	3-4"	6.32	G5V					6			2.5K
								7			
								8			
90	3-5"	12	M0					8	Vys250B	Faint Ex B component to SW	
								9	comparison	strong line slightly saturated	
157		10	M					10	Vys250A	very cloudy	
								11			
								1			
								12			1.5K
1.6K	5"	7.48	M2					13	Morgy Std vel		
								14			2.5K
								15			

225 pg #2

Date 1998 Feb 24/25 Observers Hjx / Tm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc52379	HD120315	13 43 36	+49 48 45	23 55 55					192
80	Comp							Feat Nos	45
81	Comp							"	4
82	FK Com	13:30:46.89	24:13:58.9	00 17 54					901
83	"	"	"	00 35 18					887
84	"	"	"	00 50 27					600
85	Comp							"	45
86	B/115(4)			01 02					0
87	FK Com	"	"	01 04 04					615
88	"			01 14 38					600
89	"			01 24 59					668
90	"			01:36:44					606
91	Comp							"	4
92	FK Com			01:48:31					600
93	"			01:59:13					931

Spectr. Temp. ..... Dome Temp./Hum. 0°C 75%H Transparency Conditions .. Mostly cloudy 226
Focus ..... 6.85 ..... & getting v windy
Spectr. Temp. ..... Dome Temp./Hum. ..... C) 400 0 50 1024 4 1 CCOFLOT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V 10.6K	6"	1.86	B3V	CHSSCCD	1800/m 66.35	30μ	6600Å	16	Telluric Std	Bd+06 0021 0500 09	7.3K
								17		@ 334 East AZ 62, Alt 57.	
								17			
733		8.2	GSII					18			
708		"	"					19			
600		"	"					20			
								21			
								1			
690	5"							22		(900/600 max of Hα emn	
800								23			
788		"	"					24			
572								25			
								26			
409								27			
251								27		(cloudy again)	

2723

Emulsion Batches:

Date 1998 Feb 24/25 Observers Hjx / JTn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC5239 94	FK Com	13:30:46.89	24:13:58.9	02:15:45					900
95	Comp							Feb NO5	45
96	FK Com	"	"	02:37:54					1012
97	"	"	"	02:55:09					921
98	"	"	"	03:10:53					900
99	Comp.								4
400	FK Com			03:30:30					600
401	"			03:41:00					784
402	"			03:54:26					600
403	"			04:05:21					490
404	Comp							n	4
405	B/HS(4)			0414					0
6	Comp								4
7	HD 113226	13 02 11	+10 57 37	04 19 14					39
8	Comp								4
9	Comp								4

Spectr. Temp. ..... Dome Temp./Hum. 0°C 77%H Transparency Conditions medium cloud 28
Focus 6-85 + gusty NNW wind
Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Exp	Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	9m	257		8-9	G5II	Cass CCD	1800/m 66.35		6600A	28			
	45									29			
	4m	370				"	"			6			
	9m	350	3"-4"			"	"			7			
	9m	468								8			
	4									9			
	4m	374								9			
	7m5	138								10			
	6m	670								11			
	4m	220								12			
	4									13			
	0									1			
	4									14			
	39	9.4K		2.83	G8III					15	sp std		10K
	4									16			
	4									16			

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Emulsion Batches:

Date 1998 Feb. 24/25 Observers Hjx I.T.s

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCS2490	FK Com	13:30:46.89	24:13:58.9	04:25:26					310
411	"			04:31:18					306
412	"			04:37:01					287
413	"			04:42:29					317
414	"			04:48:33					296
415	"			04:54:18					292
416	"			04:59:51					317
417	"			05:05:57					346
418	"			05:15:32					358
419	Comp								45
420	FK Com			05:25:14					325
421	"			05:31:32					346
422	"			05:37:59					340
423	"			05:44:11					442
424	"			05:52:20					410
425	Comp								45

CCD
Spectr. Temp. ~100.2°C. Dome Temp./Hum. 0°C 80% Transparency Conditions Clearing 230

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter Exp	Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3½	600		8-9	GSLL	Cass CCD	1800/m 5 6.35	306μ	6600Å	17			
3½	600								18			
2½	610								19			
3½	601								20			
2½	600								21			
2½	600								22			
3½	600	4"							23			
3½	600								24			
3½	602								25			
4½									26			
3½	600								6			
3½	600								7			
3½	600								8			
4½	600								9			
4½	600								10			
4½									11			

231 p95

Emulsion Batches:

Date 1.9.98..Feb.24/25.. Observers ..HJ.K./.Tm.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD2426 27	Comp HD205435	21 3013	+45 0859	06 10 34					1 5 9
28	Comp							Fe Ar NDS	4
29	BIAS (4)			06 15					0
30/39	FLATS x 10							THAR NDS	7s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .. Fine .....

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. .. 0.°C ... 81.1% H

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15	15	10.5K	5"	3.99	G&III		1800 58.35	306	6680	12c	Stilvel	For this program D+00 00 23	
5	4									14			
	0									1			
5	7									2			

237#1 Wed/Thurs

Date 1998 Feb 25/26 Observers Hjx/Tu ... [Vys. pgm.] #1 FIRST

Emulsion Batches:

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.....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 529 40/41	Inbound/out							FeNe ND5	4/2
42	Comp							"	4
43	HD 30136	4 39 50	+40 07 51	18 45 42					96
44	Comp							"	4
45	Comp							"	4
46	HD 36395	5 26 18	-03 41 00	18 55 25					357
47	Comp							"	4
48	B/H5(4)								0
49	Comp							"	4
50	Vys 413	03 02 34	-04 21 13	19 08 48					1135
51	Comp							"	4
52	Comp							"	4
53	Vys 430	03 42 47	+22 9 10	19 34 12					1148
54	Comp							"	4
55								"	4
56	Vys 478 B	03 38 17	+16 21 30	20 03 04					1265
57	comp							"	4

CCD

Speetr. Temp. ..... Dome Temp./Hum. 4.3.3°C 68684 Transparency Conditions .... Fine but gusty 23+ NORTH wind

Focus ..... 6.89 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C)

↑ HOT MAX

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1800 l/m 4774	306	5300A	3/4			
								5			
—		5.97	G8III					6	NORMALIZATION		JK
								7			SAK
								8			
1000		7.97	M1					9	MURCY Std.		670
								10			
								1			
								10			
213	2-3"	10.5	MO					11	AC-04	2410-76	good one
								12			
								13			
192	2:3"	11.2	MO					14	AC+2 2292	-51	
								15			
262	2"-4"	11.1	MO					16		AC+17 449-111	
								17			

235+42 Wed / Thurs

Emulsion Batches: .....

Date 1998 Feb 25/26 Observers HJ.K./I.N. [illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	~~Ending Time~~ E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5245 8	Vys428A	03 38 12	+16 21 30	20 26 23					943
59	Comp							FeNe ND5	45
60	BIAS(4)			2043					0
61	Comp							"	4
62	HD95735	10 57 54	+36 38 00	20 51 16					564
63	Comp							"	4
64/69	FLATS x 6							TUNG ND4	5
CC5247 0	Comp							FeAr ND5	45
71	HD120315	13 43 36	+49 48 45	21 13 42					40
72	Comp							"	45
73	Comp							"	45
CC5247 4 77	FK Com	13 30 47 (2000)	+12 41 59	21 24 36,	~~Last Start~~ 21:40:23	21:56:16	22:11:44	exp time → exp Min →	900, 900, 15
78	Comp							"	4
79	BIAS(4)			2224	#81	#82			0
~~80~~/83	FK Com	"	"	22 29 18	22 35 02	22 45 28	22 56 04	exp time → exp Min →	600, 736,
84	Comp							"	4

Spectr. Temp. ..... Dome Temp./Hum. +2.5°C ... 72% Transparency Conditions ... Fine 236

Focus ..... 6.89 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... cd 400 0 50 1024 4 1

Exp. Mtr.	Seeing	Plate Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 354	2" ~~5"~~	10.3	m0	CASS Igrating	1800 l/m 47.74°	306μ	5300Å	18	BD+16 502	Vyc program	
								19			
								1			
								~~19~~			
2K	4.6"	7A8	M2					20	mirac Std Gel	-84.70 Vhelio	1K
								21			
								2			1.65K
				Igrating	1800 l/mm 56.35°	306	6606Å	22			
12.5K	6"	1.86	B3K					23	Telluric Std	Big Air mass 72	
								24			
								24			
700, 600 840, 730		8-9	G5II					8c.			
								9			
								1			
600 845	604 930	~~430~~ 420						10, 11, 12, 13		>12K photons Weak background	
								14			

237 / 243 Wed / Thurs

16 Date 1998 Feb 25/26 Observers HJx / TN

Emulsion Batches:

Plate No.	Object	R.A. 1900 / 2000	Declination 1900 / 2000	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC524 85/89	FK Com	133047	+241359	#85 230559,	#86 23:14:33,	#87 #~~87~~ #88 23:23:10, 23:31:46,	#89 23:40:13	exp Tim exp Mir	480, 480 846, 846
90	Comp							FeAr N05	45
91	BIAS(4)			23 50					0
CC524 92/96	FK Com	"	"	#92 23:50:46	#93 23:58:43	#94 00 07 07	#95 00 14 40	exp Tim exp Mir	440, 440 820, 820
97	Comp								45
98/502	FK Com	"	"	#98 00:37:27,	#99 #500 00:49:44,	#501 00:47:46, 00:55:19,	01 03:21	exp Tim exp Mir	420, 420 800, 800
CC52503	Comp							FeAr N05	45
04	BIAS(4)			01 13					0
CC525 05/08	FK Com	"	"	#05 01 14 04	#6 01 21 51	#7 01:30:53	#8 01 38 33	Exp T counts	435, 880,
09	Comp			START of Batch of 5 400 OBS				"	45
10/14	FK Com	"	"	01 50 34					420
CC525 15/16	Comp &	BIAS(4)		02 29				FeAr N05	45
17	FK Com	13 30 47	+241359	02 34 44					440
18/21	m	x 4		02 43 27					420
22	Comp							"	45

Spectr. Temp. ..... Dome Temp./Hum. +1.8°C 73%RH Transparency Conditions Mostly clear 288

Focus 6.89

Spectr. Temp. ..... Dome Temp./Hum. .....

CA 400 0 50 1024 4 1 CCOFast

Exp. Mtr.	Seeing	Pt'g Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
480, 460 386 382, 926 760	4"	8-9	GSII	CASS CCD	1800 l/m 5635	306	6600Å	15c;	16,17,18,19	Repeat x5	
								20			
								1			
420, 426, 483 360, 934, 788			#96 00:23:15					21, 22, 23, 24, 25		Repeat x5	
								26			
420, 454, 423 390, 909, 880	2"							27, 28, 6, 7c; 8c;		Repeat x5	
								9c.			
								1			
509, 424, 420 900, 910, 850								10c;	11, 12, 13	Repeat x4	
								14			
counts 880, 915, 950	2"							15		Repeat 4200Å 5x	
								16/	1		
1050								17/	1	Had to Re look, T.O. error	
	1-2"							2		Repeat 4200Å x4	
								3			

239 Part 4 Weal/Tinus

Date 1998 Feb 25/26 Observers HJX/JTA

Emulsion Batches:

Plate No.	Object	R.A. 1900 / 2000	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC525 23/27	FK Com	13 30 47	+24 13 59	03 16 12				5x	4205
28	Comp							ND5	4s
29	BIAS(4)			03 54					0
30/34	FK Com	"	"	03 56 04				5x	420s
35	Comp							"	4s
36	FK Com	"	"	04 37 34				5x	422s
37	"	"	"	04 45 35					440
38/40	"	"	"	04 53 26				3x	430
41/42	Comp & BIAS(4)			05 17					4s
43	FK Com			05 19 32					1000
44	"			05 36 49					1014
45	Comp							ND5	4
46	"							"	4
47	HD 113226	12 57 12	+11 29 48	05 58 13					188
48	Comp								4
49	Comp								4
50	HD 205435	21 30 13	+15 08 59	06 08 58					305
51	Comp								
52/61	FLATS	X10						ND5	75

CCD
Spectr. Temp. ...-100.5°C.... Dome Temp./Hum. +00.2°C 77.0% Transparency Conditions ....Mostly clear.....210

Focus ....6.89..... increasing cloud By 5AM

Spectr. Temp. ..... Dome Temp./Hum. -00.7°C 81.1%

Exp. Mtr. 1000V	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~260~~ > 900	1-2"	8-9	G5II	CHSS	1800ln 56.35°	30u	6600B	4c1		Repeat 4200BS.BAT 5	
								5			
								1			
								6		Repeat 420 x 5	
								5			
								6		Make ok	
750								7			
775, 630, 530	1-2'							8		Repeat x 3	
								9			
777								10			
751								11			
								~~12~~ 12			
8K		2.83	G8III					13	Sp Std		
								14			
								15			
								16			
45K (3-4")		3.99	G8III					17	Std Tun	CCD2567 BIAS(4)	
								18			

24"/4"/1 Thurs/Fri

Date 1998 Feb 26/27 Observers H.J.K./J.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC525 63/64	Inbound/Outbound							Red NO5	4/6
65	BIHS(4)								0
66	Comp							"	4
67	HD 30138	4 39 50	+40 07 51	184356					183
68	Comp							"	4
69	Comp							"	4
70/71	HD 5394	x3		185954					173/4
73	Comp							"	4
74	Comp							"	4
75/77	HD 23630 (V Cas)		~	1910					30sec
78	Comp							"	4
79	Comp							"	4
80/82	HD 23862 (28 Tau)	3 43 14	+23 49 52	192122					60s
83	Comp							"	4
84	BIHS(4)			19					0

Spectr. Temp. ..... Dome Temp./Hum. 15.0 69.3%H Transparency Conditions .. Hazy 247

Focus ..... 6-89 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFMT

Exp. Mtr. 1000V	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASSCCD	1800l/m 56.35°	306u	6600A	3/4	focus		
								1			
								5			
3K	1-2"	5	G8					6	no Amplification		4K
								7			
								7			
~~3K~~ 3K	1"	2.7v	B0 IVe					8		3x	8K
								9			
								9			
~7K	1"	2.9v	B7 IIIe					10		3x ~	8K
								11			
								12			
3K	1"	5.1	B8e					12		3x	9K
								13			
								1			

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Emulsion Batches: .....

Date 1998 Feb 26/27 Observers HJM./I.T. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCD2585	Comp							~~Red~~ NDS	4
86/88	HD 37202	5 31 40	+21 04 54						30s
89	Comp							"	4
90	Comp							"	4
91/L	HD 33328	5 04 22	-08 52 56	19 40 57					
92	"			19 43 05					2 ~~5~~ 4
93	"			19 50 41					171
94	"			19 55 20					133
95	Comp							"	4
96	HD 33328			20 04 43					
97	"			20 11 42					30
98	Comp							"	4
99	Comp							"	4
600	HD 245770	5 32 42	+26 16 00	20 17 34					1330
601	"	"	"	20 50 59					/
602	Comp								

Spectr. Temp
Focus 6
Spectr. Temp

Exp Mtr S

7k
4k
10k
8.8k
5.9k

Spectr. Temp. ..... Dome Temp./Hum. +4.3°C 64%H Transparency Conditions ... Part. Cloudy 244

Focus ... 6.89 .....

Spectr. Temp. ... -160.5°C ... Dome Temp./Hum. +3.3°C 64.9%H

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800L	30μ	660A?	14			
~7K								15		~7K	~7K
								16			
								16			
4K			B2IVe	4.3V				17		no	
10K								18		~~Yes~~ The Funny COSMIC RAY?	
8.8K								19		guided <=>	
5.9K								20	one	E->W TRAIL	
								21			
								22			
								23			
								24			
								24			
720	1"	89	B0					25	*	Nasty cosmic RAY in each Hα Em. PROFILE	
755	<1"							26			
								27			

26S p93 TWAS/FAI

Date 1998Feb26/27 Observers H.Jx./I.Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD2603	BIAS(4)			2120					
04	Comp		1900					FeAr N05	4s
05	BD+33 1646B	08 02 34	+33 06 25	21 24 09					1363
06	Comp							"	4s
07	BD+33 1646A	"	"	21 49 16					883
08	Comp							"	4
09	Comp							"	4
10	HD 15735	10 57 54	+36 38 00	22 13 40					476
11	Comp							"	4
12	BIAS(4)			22 22 50					0
13	Comp							"	4
14	HD 120315	13 43 36	+49 48 45	22 27 43					43
15	Comp							"	4
16	Comp								
17/20	FK Com	13 30 47	+24 13 54	22 35 22	22:56:21	23:16:57	23 37 36		120
21	Comp							900	200
									200 ES

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..Thin cloud..... 246

Focus .....6.89.....

Spectr. Temp. ..... Dome Temp./Hum. .....+3.1°C 55.3% CO

Comparison Filter	Comparison Exp.	Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						C455CCD	1800 l/mm 56.35°	306	6600Å	1			
	45									28			
	1353	94	1"	12	M0					29	Vys250B	Fainter S wone single Hz em this time	
	45									36			
	1853	270	1"	10.5	M looks K like					6	Vys250A		
	14									7			
	4									7			
	4%	1450	1"	7.98	M2					8	many stdvel -84.70 V⊙		
	4									9			
	0									1			
	4									10			
	43	9K								11	Telluric Std Per mass 2		
	4									12			
										12			
		480											
		480 604	475	2"	8-9	G5II				13	14,15,16		
										21			

24 Feb 94 Thurs/Fri

Emulsion Batches: .....

Date ..1998 Feb 26/27 Observers .Hjx./.Tn..... .....

27 .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC53622	BIAS(4)			2354		*CC53636=Comp			0
23/27*	FK Com	133047	+241359	235534	000946	002546	00:41:35	458 / 826	913 / 800
28	Comp								4
29/37	FK Com	"	"	00:55:48,	01:05:21,	01:14:06,	01:24:30	540 / 420	480 / 480
38	Comp								4
34/38	FK Com	"	"	013307,	014202,	(START of Repeat x3 01:51:07)			420
39/40	Comp & BIAS(4)			START of Repeat x5					4s
41/45	FK Com	"	"	021602					420
46	Comp.								4
47/51	FK Com	"	"	025612					420s
52/53	Comp & BIAS(4)			0334					4s
54/58	FK Com	"	"	033556					420s
59	Comp								4
60/64	FK Com	"	"	041529					420
65	Comp								4
66	BIAS(4)			453					0

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Part. Cloudy 248

Focus .... 6-89 .....

Spectr. Temp. ..... Dome Temp./Hum. 0° 57% H

Comparison Filter	Comparison Exp.	Exp. Mtr. 1000 V	Seeing	PV. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	0					CASS	1800 l/m 56.35°	30u	6600Å	1			
8	913	600 533 772 788	1-3"	8-9	G 5I					22, 23, 23		4 x	
5	886												
	4												
	946	800 746 736 760								6, 7, 8, 9		4x	
0	436												
	4									10			
	4½		1½-2"							11, 12		5 x	
	4½	860								13			
	4½	840, 834								14			
	4½	815, 729,								15			
	4												
	4½	740, 780, 857	2"							16		Repeat 5x	
	4½	[TOTAL of 5]								17/1			
	4½	3900	2"-4"							18		Repeat 5x	
	4									19			
	4½	4000								20		Repeat 5x	
	4									21			
	0									1			

2 Apr 45

Thurs / Fri

Date .1998.Feb.26/27.. Observers ..Hjx./.JTy.....

55

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC526 67/71	Fk Com	133047	+241359	045525					420
72	Comp							Fe4 N05	45
73	Comp							4	45
74	HD113226	125712	+112948	053612					82
75	Comp								4
76	Comp								4
77/78	Fk Com	133047	+241359	054208	054931				420 424
79	Comp								4
80	Comp								4
81	HD205435	213013	+450854	060415					122
82	Comp								4
83/92	FLATS x 10							JMG N05	75
693	BIAS (4)			06					0

CCD
Spectr. Temp. -101.3°C Dome Temp./Hum. Transparency Conditions increasing cloud gain.

Focus 6.89

Spectr. Temp. Dome Temp./Hum. 0° 58% H

Comparison Filter Exp.	Exp. Mtr. 1000 V TOTAL	Seeing	Ptg/ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
120		2-3"	8-9	G5II		1800 l/m 56.35	306u	6600Å	22		Repeat x 5	
4 15									23			
45									23			
82	7.5K								24			7.5K
4									25			
4									26			
42	806	3"	8-9	G5II					26,27			
24	770											
4									28			
4									29			
122	8.8K								5	std vel		
4									6			
76 05									2			13K
0									1			

25 pkg 1

Date 1998 Feb 27/28 Observers MK. / Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CU52694/95	② Inboard/Outboard							FeAr ND2	4/6
96	BIAS(4)			23 52					
97	comp							"	4
98	HD95660	10 57 24	30 58 00	00 00 50					600
99	"			00 11 31					600
700	"			00 21 51					600
01	comp							"	4
02	~~HD95660~~ BIAS(4)			02 19					
03/04	flat							Tung ND3	4

Spectr. Temp
Focus
Spectr. Temp

Exp. Mtr.

1203

1300

936

Spectr. Temp. −100.3 Dome Temp./Hum. 1.2/74.1 Transparency Conditions clearing 252

Focus 6.89

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47.06	30μ	5184	3/4			
								1			
								5			
1203	3"	8.0	F3					6			
1300								7			
936								8		cloudy	
								9			
								10			
								2			11K

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Date 1998 Mar 7/8 Observers [illegible]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52710/11	Inb/outBoard Heat Exch							HeNe NDS	4/2
12	Comp							"	4
13	HD 70272	81559	-033032	214609					61
14	Comp							"	4
15	Comp							"	4
16	HD 36395	52618	-034100	215216					704
17	Comp							"	4
18	BIAS (4)			2205					0
19	Comp							"	4
20	BD-02 3000	95313 2000	-034118	220922					968
21	Comp							"	4
22	BD-02 3000	"	"	222727					1056
23	Comp							"	4
24	BD-02 3000	"	"	224139					1090
25	Comp							"	4
26	BIAS (4)		"	2308					0

Spectr. Temp. CCD — °C Dome Temp./Hum. +2.5°C 75%H Transparency Conditions ... Hazy ... 254

Focus ... 6.89 ...

Spectr. Temp. ... Dome Temp./Hum. ... 400 0 50 1074 4 1 CCOFMTT

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1800/m 47.74	30μ	5300Å	3/4			
								5			
3K		4.25	K4.5	III – IIIb				6	Just while normalizing G.I. colors		
								7			
								8		RSun Sol corr −16.87	
1000	5"	7.97	M1					9	Mercy Stl ve/RV⊙ +8.52		
								10			
								1			
								11			
245	3-6"	10.54	M0					12	Vys 560	RSun −6.84 good one FOR H/K	
								13			
360								14	"		
								15			
248	3-4"							16	"		
								17			
								1			

255 pg 47 SAT / SUN

Date ..1986 MAR 7/8 Observers [Vyg]/Mki/Tk.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 52727	Comp BD+01 2447	10 7349	+01 21 36	231201				FEND NOS	45
70	BD+01 2447	↓	↓	53 1201					987
29	Comp							u	4
30	Comp							"	4
31	Vys 622	11 4755	+19 28 59	233526					1780
32	Comp							"	4
33	Comp							"	4
34	Vys 636	12 08 17	+17 15 24	001128					2005
35	Comp							"	4
36	Bill's (4)			0046					0
37	Comp							"	4
38	HD 103095	11 7 13	+36 26 10	005116					249
39	Comp							"	4
CC 8217/81	1230 (HD 103095)	Seeing Test						4x	67
31/32	=							2x	133
40/47	FLATS x 18								

Spectr. Temp
Focus 6
Spectr. Temp

Exp Mtr	S
1200	
1440	3
54	2
120	2
24K	12

Spectr. Temp. ..... Dome Temp./Hum. +0.5°C 80% H Transparency Conditions ... Hazy .....

Focus .... 6.89 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFmt

Exp. Mtr.	Seeing	Pg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				CASSCCD	1800/m 47.740	306u	5300A	18		(RSun = −4.29 Km/s)	
2460	3-4"	9.65	M2					19	MARCY STD VEL	RVs = +8.36	
								20			
								21		OK RSun +2.65 Km/s	
154	2"-3"	11.7	M0					22	AC+19	1971-31 J +0.003 ± 0.002	
								23		VSI Blue std PD101 247 5	
								24			
120	2"	11.96	M0					25		Yes	
								26			
								1			
								27			
2.4K	1"-2"	6.45	G8V p					28	Std Vel	IAU −99.1 km/s	
								29			
		4	4		Blue 306u	Slit			Seeing	Test	
								2		13K	

257 Dy3 SAT/SUN

Date 1998 MAR 7/8 Observers M.Ki./T.Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc52718	Comp							~~REA~~ ND2	4
49	HD103095	11 47 13	+36 26 10	01 11 31	(*) From now on to the				392
50	Comp				end of night, the central			"	4
51	Comp				wavelength is still 5300Å.			"	4
52	HD 79886	9 11 36	77 39 00	01 30 15	Thus the centlam & grating				600
53	"			01 41 10	seting in the header all				600
54	"			01 51 46	wrong. The observers				600
55	Comp				did not change grating tilt.			"	4
56	BIAS(4)			07 02	I fixed the database, but				0
57	Comp				it is too later to change			"	4
58/62	HD95660	10 57 24	30 58 00	02 08 34	→ headers of files on tape				420s
63	Comp				& cdrom!				4
64/68	HD95660	"	"	02 18 31	— Lu, 1999/01/18				420
69	Comp								4
70	BIAS(4)			08 27					0

Spectr. Temp. ..... Dome Temp./Hum. ~~-0.3°C~~ ~~80%~~ Transparency Conditions ... O.K. → Hazy ... 752.

Focus ... 6.89 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CD 400 0 50 1024 4 1 CCDraw

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V				CASS CCD	1800k 470L	30u	5184A	5			
2.6K	3"4"	645	G8 ~~V~~					6	Std Vel		
								7			
								7			
490		86	F2					8			
525								9			
570								10			
								11			
								1			
								11			
625, 670 700, 630, 700	3"4"	80	F3					12, 13	for 4 x 4200 BS. B/FT		
								~~14~~			
760	3"6"							15			
								16			
								1			

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Emulsion Batches:

Date 1998 Mar 7/8 Observers MKI/JM

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC52771	Comp							FeAr IYD2	4s
72	HD114726	130718	+031300	033157					966
73	"	"	"	034831					906
74	Comp								4
75	Comp								4
76	HD95660	10 5724	+305800	040815					600
77	"			041837					401
78	"			042608					608
79	Comp								4
80	HD95660	"	"	043857					674
81	"	"	"	045043					600
82	"	"	"	050104					601
83	Comp, + CC52784		B/HS(4)	0512					4
85	Comp								4
86	Fu Dra	1991.25 15 34 46	+621644	051901					899
87	Comp								4

Spectr. Temp. ..... Dome Temp./Hum. −0.8°C 83% Transparency Conditions ... Hazy 260

Focus ... 6.99 .....

Spectr. Temp. ..... Dome Temp./Hum. −0.8°C 84.6% CJ

Comparison Filter	Exp	Exp. Mtr. 1000's	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
4	4		•			CASS CCD	1800 l/m ~~7706~~	30u	5184	16			
4	6	970	3"7"	8.4	F2					17			
4	6	910								18			
	4									19			
	4									20			
	600	680	4"8"	8.0	F3					21			
	601	470								22			
	608	570								23			
	4									24			
	674	775								25			
	600	760								26			
	60	528								27			
	4									28			
	14			F1						29			
	600	111		10.5	F0					30			
	4												

261 pg#5 SAT/Sun

Date 1998 MAR 7/8 Observers MK./T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC52788	Comp							Feat ND2	4s
89	FO Vir	13 29 47	+01 05 48	05 36 00					
90	Comp							"	4s
91	Comp								4s
92	HD 184691	19 46 14	+10 09 55	05 54 18					11 7
93	Comp								4
94/803	FLATS	x10						Tung ND3	4s
804	BIAS(4)			06					0

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Part. Cloudy ... 262

Focus ... 6.89 .....

Spectr. Temp. ..... Dome Temp./Hum. cl

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000 V				CASS CCD	1800 l/m 4706	306u	5184	5			
5:6K	4"	6.7	A7V					6			
								7			
								7			
2K	5"	5.11	F8V					8	std		
								9			
								2			136K
								1			

Comparison Filter	Exp.
	4s
	4s
	4s
	117
	4
	4s
	0

263 PG 1 Tues/Wed

Date 1998 Mar 10/11 Observers Gld/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC52805/06	In/out board							FeAr ND1	4/7	
07	BIAS(4)			19 02						
08	comp							"	4	
09	HD 45466	06 22 35	46 44 57	19 26 19					145	500
10	comp							"	4	
11	comp	2000						"	4	
12	FF CnC	08 29 40	17 17 02	19 48 47					102	186
13	comp							"	4	
14	BIAS(4)			20 07					0	
	~~Hood~~									
15/16	In/out board							FeAr ND3	4/6	
17	BIAS(4)								0	
18	comp	2000						"	4	
19	TYC4156-810	11 33 05	63 53 46	20 42 36					200	555
20	comp							"	4	

Spectr. Temp. −100.3 Dome Temp./Hum. -5.1 / 51.0 % Transparency Conditions clearing 264

Focus 6.97

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47.06	306	518	3/4			
								1			
								5			
1500	5"	5.9	gK					6			
								7			
								7			
186	5"	10,5	KI+K					8			
								9			
								1			
								2			
				"	1800 l/mm 51.58	250	589				
								3/4			
								1			
			B-V					5			
555	4"	9.9	0.26					6			
								7			

PG 2

265 1998 Mar 10/11

Date ..... Observers Gld+/Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc52821	TYC4156-810	11 33 05	63 53 46	21 05 07					1800
22	comp							FRAT NO3	4
23	BIAS(4)			21 37					0
24	TYC 4156-810	"	"	21 37 52					1800
25	comp							"	4
26	BIAS(4)			23 43					0
27	comp							"	4
28	TYC3031-1020	13 22 45	44 42 54	23 45 54					900
29	"	"	"	00 01 16					930
30	comp							"	4
31	TYC3031-1020	"	"	00 20 45					900
32	"	"	"	00 36 06					1800
33	comp							"	4
34	BIAS(4)			01 07					0
35	comp							"	4
36	TYC3460-2395	13 23 23	46 14 52	01 16 10					1200

Spectr. Temp. −100.3 Dome Temp./Hum. −8.9/55.1 Transparency Conditions clear, some clouds

Focus 6.97 266

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
767	3"-4"	9.29	B-V 0.267	CASS CCD	1800 l/mm 51.58	250	5894	8	[HI]		
								9			
								1			
820								10		light snowing. stop.	
								11			
								1			
								11			
1060	4"-6"	8.39	AO					12			
1080								13			
								14			
1053								15			
2090								16			
								17			
								1			
								17			
440	4"-6"	9.5	B-V 0.2					18			

257 pg 3

Date 1998 Mar 10/11 Observers Gld/Lu Bur/Ber.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC52837	TYC3460-2395	13 23 23	46 14 60	01:38:00					1200	437
38	comp							Fedr ND3	4	
39	TYC 3460-2395	"	"	02 04 00					1500	555
40	comp							"	4	
41	BIAS(4)			02 31					0	
42	comp							"	4	
43	HD136849	15 17 48	33 17 30	02 36 43					300	1400
44	"			02 43 06					300	5200
45	comp							"	4	
46	comp							"	4	
47	TYC3460-1801	93 17 41	45 53 07	02 59 32					599	660
48	"	"	"	03 09 58					605	780
49	"	"	"	03 20 34					600	551
50	comp							"	4	
51	BIAS(4)			03 32					0	

Spectr. Temp. −100.3°C Dome Temp./Hum. -11.2/55.9 Transparency Conditions clear 28

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
437		9.5	B-V =0.2		51.58			19			
								20			
555		"	"					21			
								22			
								1			
								22			
5400	4"	5.37	B-V					23			
5200								24			
								25			
								25			
590	3"-5"	8.53	0.391					26			
580								27			
551								28			
								29			
								1			

269 PG 4

Date 1998 Mar 10/11 Observers Bur/Ber/Lu

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC52852	comp							FLAT ND3	4	
53	TYC 3460-690	13 25 50	45 50 44	03 35 31					1800	132
54	comp							"	4	
55	TYC 3460-690	"	"	04 07 58					1800	110
56	comp							"	4	
57	BIAS(4)			04 40					0	
58	TYC 3460-690			04 41 02					1800	114
59	comp							"		
60	TYC 3460-690	"	"	05 12 52					1800	124
61	comp							"		
62	BIAS (4)			05 44 30					0	
63/69	flats							Tung ND 4	3	

Spectr. Temp. −100.3°C Dome Temp./Hum. −11.9°C/56.6 Transparency Conditions ..... clear 270

Focus ..... 6.97 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter	Comparison Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	4							250	5894	5			
	1800	132	3-5"	11.	B-V 0.45					6			
	4									7			
	1800	110								8			
	4									9			
	0									1			
	180	114								10			
										11			
	1800	124								12			
										13			
	0									14			
	3									2			

27½ pg 1

Date 1998 Mar 11/12 Observers MKo+/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
EC52870/71	In/out Board							FeAr ND 1	¼
72	BIAS(4)			19 04					0
73	comp							"	4
74	HD 41636	06 01 19	41 04 08	19 08 21					240
75	comp							"	4
76	comp							"	4
77	HD 32963	05 01 48	26 12 00	19 18 36					360
78	comp							"	4
79	comp							"	4
80	RXSJ 01 44 15	01 01 25	41 15 03	19 35 43					1200
81	comp							"	4
82	BIAS(4)			20 04					0
83	Comp							"	4
84	HD 54975	07 05 54	-03 43 00	20 15 56					930
85	"	"	"	20 32 25					900
86	comp							"	4

Spectr. Temp
Focus
Spectr. Temp

Exp Mtr.	
1250	
1110	
207	
990	
938	

Spectr. Temp. —100.4°c Dome Temp./Hum. −8.2/47.5 Transparency Conditions fine 272

Focus 7.00

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 c so 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	306	5184	3/4			
								1			
								5			
3250	2"-3"	6.36	G9III					6			
								7			
								7			
1110		7.72	G2V					8			
								9			
								9			
207	2"	11.						10		Some clouds.	
								11			
								1			
								11			
1090		8.3	F5					12			
938								13			
								14			

273
99

Date 1998 Mar 11/12 Observers MKi/Lu

Emulsion Batches: .....

Spectr. Temp
Focus .....
Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
cc52887	HD54975	07 05 54	-03 43 00	20 50 08					1170	
88	"	"	"	21 10 04					900	
89	comp							FeAr #01	4	
90	BIAS(4)			21 27					0	
91	comp							"	4	
92	HD95660	10 57 24	30 58 00	21 33 45					602	
93	"			44:30					601	
94	"			55:44					600	
95	comp							"	4	
96	BIAS(4)			22 07					0	
97/903	flats							Tung Filter 3	4	

Spectr. Temp. −100.4°C Dome Temp./Hum. −9.1/55.1 Transparency Conditions fairly cloudy 274

Focus 7.00

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1120	2"-3"	8.3	F5	CASS CCD	1800 l/mm 47.0°	306	5184	15			
900 1070								16			
								17			
								1			
								17			
600 740.		8.0	F3					18		Near to full moon.	
601 700								14			
600 555								20		Thick, Bright Cloud.	
								21			
								1			
								2			12K

275G1

Date 1998 Mar 12/13 Observers MK:/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5290 4/05	In/out board							FeAr ND1	4/7
06	BIAS(4)			18 51					0
07	BIAS(4)			22 54					0
08	comp			"				"	4
09	HD95660	10 57 24	30 58 00	22 56 35					530
10	"	"	"	23 06 39					600
11	"	"	"	23 17 03					600
12	comp							"	4
13	HD95660	"	"	23 28 54					600
14	"	"	"	23 39 16					618
15	"	"	"	23 49 58					600
16	comp							"	4
17	BIAS(4)			00 02					0
18	comp							"	4
19	HD84441	09 40 11	24 14 05	00 31 33					60
20	comp							"	4

Spectr. Temp
Focus
Spectr. Temp
Exp Mtr

Spectr. Temp. −100.4 Dome Temp./Hum. −51.7°C/55.° Transparency Conditions cloudy 276

Focus 6.98

Spectr. Temp. ..... Dome Temp./Hum. 400 050 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47.06	306	SI 84	3/4			
								1			
								1			
								5			
2000	2"-3"	8.0	F3			(−51.7°C/65.1%)		6		clearing	
1700								7		Full Moon, Bright sky	
2400	1-2							8			
2								9			
2380								10			
2600								11			
2300								12			
								13			
								1			
								13			
8800		2.98	G1II					14			
								15			

2772

Date 1998 Mar 12/13 Observers MKi/Lu

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD2921	HD84441	09 40 11	24 14 05	00 15 14					78
22	comp							FeAr ND1	4
23	comp	(2000)						"	4
24	HT Vir	13 46 07	05 06 57	00 26 10					600
25	"			00 36 58					600
26	"			00 47 28					600
27	comp							"	4
28	BIAS(4)			00 59					0
29	comp							"	4
30	SX Crv	12 40 15	-18 48 00	01 07 36					420
31	"	"	"	01 17 48					600
32	comp							?	4
33/39	flats							Tung ND3	4
40	comp							FeAr ND1	4
41	SX Crv	"	"	01 39 28					642

Spectr. Temp. −100,4°C Dome Temp./Hum. -62°C/74.1 Transparency Conditions clear 2B

Focus 6.78

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15 K	1"	2.98	G1 II					16			
								17			
								17			
4 K	1"	7.16	G0					18			
3076								19			
1601								20	—	through, some clouds	
								21			
								ℓ			
								21			
470	2"	9.5	F7V					22		through clouds	
636								23			
								24			
								2			
								24			
670								25			

279
PG 3

Date 1998 Mar. 12/13 Observers MK:/Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
42	SX Crv	12 40 15	-18 48 00	01:51:04					599	625
43	"	"	"	02 02 41					600	~600
44	Comp.							F2Ar NO 1	4	
45	SX Crv	"	"	02 15 21					600	631
46	"	"	"	02 25 47					600	626
47	"	"	"	02 36 09					600	626
48	comp							"	4	
49	SX Crv	"	"	02 47 38					600	635
50	Comp							"	4	
51	SX Crv	"	"	03 00 57					460	460
52	comp							"	4	
53	BIAS (4)			03 19					0	
54	comp							"	4	
55	HD 136202	15 14 12	02 08 37						180	~K ~1
56	comp							"	4	

Spectr. Temp. −100.4 Dome Temp./Hum. −6.0/78.6 Transparency Conditions fairly clear 280

Focus 6.98

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
625	2"	9.5	F7V					26		Cloud at end.	
~600		"	"					27			
								28			
631		"	"					29			
626		"	"					30			
626		"	"					31			
								5			
635								6			
		2	2					7			
460		"	"					8			
								9			
								1			
								9			
8K	~1"-2"	5.06	F8 IV-V					10			
								16			

28/
PG 4

Date 1998 Mar 12/13 Observers MKi / Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CL52957	comp							FeAr ND1	4
CL52958	HD95660	10 57 24	30 58 00	03 34 48					600
59	"	"	"	03 45 15					600
60	comp							"	4
61	BIAS(4)			03 57					0
CL52962/63	Inboard/outboard							FeAr ND3	4
64	comp							"	4
65	HD145122	16 04 16	17 28 16	04 09 04					608
66	"			04 19 38					945
67	comp							"	4
68	BIAS(4)			04 37					0
69	comp							"	4
70	HD177724	19 00 45	13 42 53	04 41 57					167
71	"	"	"	04 45 08					172
72	"	"	"	04 48 37					211

Spectr. Temp
Focus.....
Spectr. Temp

Exp Mtr	S
440	
19K	
19K	
0 K	
20 K	
21 K	

Spectr. Temp. −100.9 Dome Temp./Hum. −6.7°C/73% Transparency Conditions mostly clear 882

Focus 6.98

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 47.06	3.0	5184	11			
1440	1-2"	8.0	F3					12			
								13			
								14			
								1			
	Focus (6.98 OK)				1800 l/mm 51.58	2.5 m	5894	3/4	[HI]		
								5	Te		
10K		6.14	AOV					6	Telluric	std.	
10.1K								7	"	some clouds	
								8			
								1			
								8			
21K	1"-2"	2.99	AOV					9	Telluric	std	
20.5K								10			
20.5K								11			

283 PGS

Date 1998 Mar 12/13 Observers MKi/Lu

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCS2973	comp							FeAr NO 3	4
74	BIAS(4)			04 53					0
75	comp							"	4
76	HD196504	20 32 49	26 06 50	04 57 53					100
77	comp							"	4
78	BIAS(4)			05 16					0
79	comp							"	4
80	TYC3031-1020	13 22 45	44 42 54	05 23 05					900
81	"	"	"	05 38 23					900
82	comp							"	4
83	BIAS(4)			5 54					0
84	comp							"	4
85	HD130169	14 41 12	62 18 51	06 02 19					194
86	"			06 05 57					200
87	comp							"	4
88	9X flats							Tung	4

Spectr. Temp. −100.4°C Dome Temp./Hum. −6.8/7.30 Transparency Conditions slightly hazy 284

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm 51.58	250μ	5894	12			
								1			
								12			
10.3K	2"-3"	5.59	B9V					13	Telluric	Std	
								14			
								1			
								14			
2080	1"-2"	8.35						15	[HI].		
2086								16		Bright dawn sky.	
								17			
								1			
								5			
20K		3.7	A0V					6	Telluric	Std.	
21K								7		Very bright sky	
								8	(14K)	and observe more?	
								2			

285 pg1 sun/mon

Date ..1998..MAR.15/16. Observers ..G.ld../.T.n.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.	Se
CC529 98/99	Inb/Out BOARD HUAIMAN							FEAr ND4	4/6	1000 V	
53000	B/DS (4)										
01	BIAS (4)										
02	Comp							FEAr ND4	4s		
03	HD95660	10 57 24	130 5800	192042					600	1.2K	5
04	"	"	"	193205					600.	13L	
05	Comp							"	4s		
06	Comp ✓							"	4s		
07	FF Enc	2000 082940	+171702	194900					1800	350	4
08	Comp							"	4s		
CC5309	~~FF Enc Comp~~	"	"	~~202055~~				FEAr ND4	4s		
10	FF Enc	"	"	202945					1800	188	
11	COMP								4s		
12	Comp								4s		
13	FF Enc	"	"	22 2549					1800	279	3
14	COMP								4s		
15	FF Enc			22 58 05					1800	274	

Spectr. Temp. ccd
Focus 6
Spectr. Temp.

ccd Spectr. Temp. −100.4°C. Dome Temp./Hum. −5.5°C 60% Transparency Conditions Fine 286

Focus 6.98

Spectr. Temp. Dome Temp./Hum. cd 400 050 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000 V				CASS ccd	1800/m ~~47.06~~	306μ	5~~8~~94Å	3/4			
					51.50 ? Still ?	By mistake		1,			
								1		Then Reboot again	
1.2K	5"	8.0	F3					1c;		after Reboot	
1136								1c			
								2			
								3			
250	4"6"	11						4		Wrong Setup !	
								5			
				Tycating	1800/m 47.06	306μ	5784	~~7~~			
188		11						8		~1/3 blocked by dome error in fmt?	
								9		Focus Problems ~2hr delay	
								~~9~~			
279	3"							10			
								11			
274								12			

287 Ag #2 sun/moon

Emulsion Batches: .....

Date 1998 MAR 15/16 Observers .. Gld/Tr...Sone/Mtr .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc53016	Comp							Feltr ND4	4s
17	FF Cnc	2000 082940	+171702	23456					184
18	BIAS(4)			00004					0
19	Comp							"	4
20	FFCnc	"	"	000408					1807
21	Comp							"	4s
22	FF Cnc	"	"	003559					1808
23	Comp							"	4s
24	BIAS(4)			0107					0
25	Comp							"	4s
26-28	HD 95660	1900 105724	+305800	011232,	012305,	013324			600s
29	Comp								4s
30	Comp								4s
31	HD 84441	1900 94011	241905	014733					603s
32	Comp							"	4
33	BIAS(4)			0157					0

Spectr. Temp. ..... Dome Temp./Hum. -7.6°C 51.6%H Transparency Conditions ... Fine 228

Focus ..... 6.98 .....

Spectr. Temp. ..... -100.1°C .. Dome Temp./Hum. -8.8°C 50.8%H

c) 400 0 50 1024 4 1 CCDEMT

Exp. Mtr. 1000 V	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSS CCD	1800h 47.06	30u	5184Å	13			
247	4"6"	11						14			
								1			
								15			
~270	3"5"							16		Bad cosmic Rays near Central 8	
								17			
240								18			
								19			
								1			
								19			
~1400		8.0	F3					20-22			
								23			
								24			
10,500								25		6k max.	
								26			
								1			

289 pg. 43 sun/moon

Date 1998 MAR 15/16 Observers G.H./T.G.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC53034	Comp							FEA ND4	4s
35	HD90861	10 24 18	+29 05 00	02 01 59					313s
36	Comp							"	4s
37-42	flats							Tung ND3	
43/44	In b/out				OG560 ORDER SEP Filter			FEA ND5	4/6
45	Comp				FOR Stellar R60 Filter FOR Comparison			"	4
46	HD95660	10 57 24	30 58 00	02 31 33					400
47	Comp							"	4s
48	Comp.							"	4s
49	SN1998S	11 46 06 2000	+47 28 56	02 53 00					603
50	~~Comp for next object~~ BIAS (4)				0318				4s
51	Comp for H52							"	4s
52	USNO 0551041 8	11 43 05 2000	64 08 00	03 22 11					632
54	Comp FOR CC53054							"	4s
53	USNO 0591376 8	11 44 46	64 11 43	03 34 47					600
55	comp FOR CC53046								4s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Mostly Clear ... 290

Focus ... 6.98 ..... 7.13 for 1500 l/m grating

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10000				CHSS CCD	1800 l/m 47.06	306μ		27			
1890	5"							28	Std bd	pass, continuum (This is brighter of 2)	
								29			
								2		Note FORMAT	
(Using		2nd ORDER)	"		1501 l/m 23.29	306μ	6000Å	1/2		425 025 1024 8 1	
1000 Volts								3			12K
330	5"							4			6K
								5			
1320 V								6			
288	3"							7			
								8			
								7			
400	3"							8		Δα = -0m57s Δδ = -2'54" Revised.	
								10			
310								9		Δα = -0m57s Δδ = -3'03"	
								11			

29 Page #4

Date 1998 Mar 15/16 Observers Gld/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Sc
CCS3056	USNO 0451 4988	11 45 22	63 40 43	03 50 46					900	360	
57	USNO 0451 6444	11 46 02	+63 42 28	04 07 30					900	430	
58	Comp for CCS3057								4s		
59	BIAS (4)			04 24				Fear NDS	0s		
60	comp for CCS3061							-	4s		
61	USNO 0451 5138	11 45 26	63 37 21	04 27 33					632	437	
62	USNO 0451 4988	11 45 22	63 46 43	04 40 56					910	313	
63	Comp for CCS3062							"	4s		
64	comp for CCS3063							"	4s		
65	USNO 0843 9274	13 24 04	45 05 13	05 02 04					607	360	4
66	USNO 0842 6851	13 19 49	45 27 14	05 14 02					729	347	
67	Comp for CCS3066							"	4s		
68	BIAS (4)			05 28					0		
69	Comp										
70	HD 131156	14 46 46	+19 30 57	05 35 58					22s	Sk	

Spectr. Temp. ..... Dome Temp./Hum. -10.3 / 52.1 H Transparency Conditions ..... Clear 292

Focus ..... 7.13 .....

Spectr. Temp. ..... Dome Temp./Hum. -11.2°C 53.8H

425 0 25 1024 8 1 CCOFUT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
360								12		$\Delta\alpha = -0^m 57^s$ $\Delta\delta = -3' 6''$	
430								13		$\Delta\alpha = -0^m 56^s$ $\Delta\delta = -3'' 9''$	
								14			
								1			
								15			
437								16			
363								17		$\Delta\alpha = -55^s$ $\Delta\delta = -3' 9''$	
								18			
								19			
360	4"							20		$\Delta\alpha = -0^m 34^s$ $\Delta\delta = -2' 21''$	
347								21			
								22			
								1			
								23			
~5k								24		10K max	

293 #5

Date 1998 MAR 15/16 Observers GLd / TG

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
71	Comp								
CCD3072	HD134083	150255	+25153	054136					38½
73	Comp for #74								4
74	HD140159	153706	+19532	054531					40
75	Comp for 76								4
76	HD141004			054912					26
77	Comp for 78								4
78	HD170073			055628					51½
79	Comp for 80								4½
80	HD198183			060156					34½
81	BIAS (4)								0
82/88	FLATS	x7		(+ND 1.2 N80	060560 in Beam for Flat)			TUNG ND5	2½

Spectr. Temp. ..... Dome Temp./Hum. -11.2°/53%H Transparency Conditions ... Fine 294

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. -11.6°C 54%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320V						25		25			
5935						26	6000A	26		11K max.	
								27			
7K								28		13.5K max	
								29			
6.7K								30		11.5K max.	
								31			
6.5K								32		13K max	
								33			
6.5K								34		11K max Sky bright	
								1			
6 secs								35			13A

295 Pg #1 Mon / Tues

Date 1995 MAR 16/17 Observers [V95] / Tu / Then HI group. Mike Casey & Chris Burns

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc530 89/90	Inb / out board							FeNe ND5	4/2
91	Comp							"	4
92	✓HD47914	1900 6 3548	+44 3714	190706					58
93	Comp							"	4
94	Comp							"	4
95	HD 36395	1900 5 2618	+03400	191339					268
96	Comp							"	4
97	Comp							"	4
98	Vys406	1900 02 4632	+26 3359	192352					1133
99	Comp							"	4
100/103	FLATS x 4							TUNG ND3	4s
104	BIHS(4)								0
105	Comp							REAR ND4	4s
106	FF CnC	2000 08 2940	171702	195646					1800
107	Comp							"	4s
108	BIHS(4)								0

CCD
Spectr. Temp. −100.3 °C Dome Temp./Hum. −25°C 43%H Transparency Conditions ..... Fine 296

Focus ..... 6.97 .....

Spectr. Temp. ..... Dome Temp./Hum. −35°C 41.6%

400 0 50 1024 4 1 CCDFAT

Exp. Mtr.	Seeing	Pg/ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000 V				Tyrating	1800 l/mm 47.74 *	306	530nm	1/2			
					47.73 *			3		* grating angle slightly changed.	9K
		5.02	K5 III					4	Wavelength Star		
								5			
								6			
1.2K	1"	7.97	m1					7	std Mercy		780
~~1.2K~~								8			
								9			
270	1"	10.8	m0					10			
								11			
								12			14K
					4706	306	5884	1			
1320V								13			
5.6K	1"-2"	11						14			
								15			
								1			

297
Pg#2

Mon / Tues

Date 1998 MAR 16/17 Observers HI group / TH

Emulsion Batches:
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Plate No.	Object	R.A. 1900 2000	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC53109	FF Cnc	08 2940	+171702	20 3057					195
10	Comp							Feder 1404	4
11	FF Cnc			21 0546					1847
12	Comp							"	4
13	B/A5(4)			2138					0
14	FF Cnc			21 3913					1800
15	Comp							"	4s
16	FF Cnc			92 1143					1800
17	Comp							"	4s
18	FF Cnc	edit ✓		22 44 43 ~~22 1443~~					1765
19/20	Comp &	B/A5(4)		2316				"	4s
21	Comp							"	4
22 ~~23~~	HD84441 ~~Comp~~	9 4011	+241405	23 2812					76
23	Comp							"	4
24	Comp								4

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Part. Cloudy 298

Focus .... 6.97 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr. 1320V	Seeing	Plt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
6.7K		11		CASS CCD	1800L 4706	306	5184A	16			
								17			
5.4K	2-3"							18			
								19			
								1			
4.9K	2"							20			
								21			
4.8K								22			
								23			
5.K	2"-4"							24			
								25			
								~~26~~			
1000V								~~27~~			
17K		2.98	G1 II					~~28~~	st. level		
								28			
								28			

200pg#3

Date 1998 MAR 16/17 Observers HI group / JTA

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD3125	HD90861	102418	290500	232812					75
26	Comp							REAR ND4	4s
27/33	FLATS x 7							TUNG ND3	4s
34	BIAS(4)			2357					0
CCD3135/36	Tab/Out Board			0G560 filter for Stellar					4/6
37	Comp			R60 for Comparison Beam				REAR ND5	4s
38	USNO 0551321	11 4447	2000 641354	00 3325					900
39	Comp							"	4s
40	USNO 0551315	11 44 32	+641922	00 5713					719
41	USNO 0551011 5	11 41 20	+64 15 38	01 13 31					815
42	Comp							"	4s
43	BIAS(4)			0128					0
44	Comp							"	4s
45	USNO 0550794	11 4107	643206	01 3453					671
—	USNO 0550379 5	11 3929	643054	TOO	FAINT	Probably			
46	Comp							"	4s

Spectr. Temp. ..... Dome Temp./Hum. -5.7°C 56% H Transparency Conditions .. mostly clear 300

Focus 6.97 7.20 for 150l/m grating

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr. 1000	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5.7K	2-3"	7.20	K2 III	CASSCCD	1800 l/mm 47.06	306u	5184Å	29	std vel		35K
								30			
								2			12K
								1			
2nd ORDER of Grating					150l/m 23.29	306u	6000Å	1/2	Focus	390 0 25 1024 8 1 CCDFMT1	
		RelMag						3		-00 00 34 for Bright -00 01 06 STAR Focus on: ~~feature~~ bright	
360		120.5						4			
								5			
337	2"	120.1						6	Δα	-00 00 44	
330								7	Δδ	-00 01 21	
								8	Δα	-00 00 47	
								1	Δδ	-00 01 27	
								9			
325	1½"							10			
								11			

301 pg#4

Date 1.7.98 MAR 16/17 Observers H.J. group I.T.s

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC53147	Comp							REAR NO 5	4s
148	USNO 0843736	13 23 24 (2000)	+45 00 10	02 03 05					727
149	USNO 0843 0503	13 21 04	+45 13 10	02 19 46					900
150	Comp							11	4s
151	Comp							"	4s
152	USNO 0842 6928	13 19 51	+45 13 35	02 42 34					1119
153	Comp							"	4s
154	BIAS (4)			0303					0
155/161	FLATS x 7					ND 1.2 + OG 560 (Ex Hers)		TUNG NO 5	6s
162	BIAS (4)								0
CC53163/64	Inb Lower Board							REAR NO 3	4/6
65	Comp							"	4s
66	USNO 0855 14988	11 45 22 (2000)	+63 40 43	03 44 56					
67	Comp								4s
68	BIAS (4)								0

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Thin cloud 302

Focus ..... 7.20 ..... 7.00 for 1800 l/m grating

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr. 1320V	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS 23.29°	150 l/m 2nd ORDER	306u	6000Å	11			
320	1"	R mag 12.5						12		Δα = -00 00 19 Δδ = -00 00 57	
308		R mag 12.9						13		Δα = -00 00 30 Δδ = -00 01 19	
Fn ↑								14			
Fn ↓								14			
456		R mag 12.4						15		Δα = -00 00 34 Δδ = -00 01 09	
								16			
								1		>> Bias 4.6u+	
								17			
1320V		V						1			
					1800 l/m 51.58	250	306u	12	focus	306u slit for Test,	
						350u	5894	3			
1410	3"	12.7	B-V=?					4			
								5			
								1			

303 1945

Date 1.1.98.MAR.1.6.17 Observers H.J. Lyn. T.S. Burnse Cosey

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC53169	Comp							Kodak ND3	4s
70	TYC 4156357	11 3836 (2000)	+64 15 37	04 49 30					1800
71	Comp							"	4s
72	TYC 4156357	"	"	05 02 11					1800
73	Comp							"	4s
74	Comp							"	"
75	HD 120315	13 48 36	+49 48 45	05 42 30		ND 1.2 in Stellar Beam			307
76	Comp							"	4s
77	Comp							"	4s
78	HD 177724	19 00 49	+13 42 53	05 56 43		ND 1.2 in Stellar Beam			328
79	Comp								4s
80	BIAS(4)								0
81/87	FLATS x 7							TUNG ND4	4

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... 30¢

Focus ..... 7.00 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... -7.1°C 71.5%H

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1320				CASS	1800A 51.58°	2"	5894A	6		+ Reduct noted	
1933	1-2	11.5						7	noise	02 00 01 00 55 00 02 00	
								8			
2110	2"							7			
								8			
								9			
5.9K	3"	1.9						10	Telluric	Std	43K
								11			
								12			
2.3K								13	Telluric	Std	
								14			
								1			
								15			13K

DgHl Mon/Tues
305
Date 1948 MAR 23/24 Observers [illegible]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5381 66/44	Inb Louisboard							FeNe 1405	4/2
90	Comp							FeNe 1405	4
91	HD 60437	7 2916	+46 7403	19 3344					5/6
92	Comp							"	4
93	Comp							"	4
94	Vys 436	03 4247	+02 2910	19 42 30					835
95	Comp ✓							"	4
96	BIAS (4)			1958					0
97	Comp							"	4
98	HD 36395	5 2618	−03 A100	20 02 28					940
99	Comp							"	4
cc53200	Comp							"	4
01	Vys 645	12 14 55	+53 20 04	20 26 11					1500
02	comp							"	4
03	BIAS (4)			20 52					0

CCD
Spectr. Temp. −100.4 °C Dome Temp./Hum. 0.0°C 62% H Transparency Conditions Clearing by Sundown 366
But Thickening again
Focus 6.95
Spectr. Temp. ..... Dome Temp./Hum. ..... C.J 400 0 50 1024 4 1 CCOFMTT

Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1000V						30μ	5300Å	1/2			
								3			
3K	3"	5.65	MO II					4	NORMALIZATION-STAR		
								5			
								6			
164	3"	11.2	MO					7	HC+2	2282-51 some cloud	
								8			
								1		x 138.19 σ 4.162	
								9			
1104	3"	7.97	M1					10	Marcy std vel		
								11		(SOUTH East of pair wide)	
								11		Δα	
212	2"	11.2	MO					12	Vys pgm	Δδ +00 00 24 Δs 00 00 48	
								13			
								1			

307 pg#2 Mon / Tues

Date 1998 MAR 23/24 Observers [Vys] / In / Au

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5320~~4~~	Vys 677A	124550	+40 5439	210033					1424
05	Comp							Fe16 NO5	4s
06	Comp							"	4s
07	BD+01 2447	10 2349	+01 21 36	21 3429					1290
08	Comp							"	4s
09	Comp							"	4s
10	HD 123782	14 04 33	+49 55 50	220304					327
11	Comp							"	4s
12/18	FLATS x7							TURQ NO3	4s
19	BIAS (4)								0
CC5329~~/21~~	Inb / OUTBOARD							Fe16 NO1	4/6
22	Comp							"	4s
23	HD 95660	10 5724	+30 5800	22 2555					720
24	"	"	"	22 3815					600
25	"	"	"	22 4836					600
26	comp							"	4s

Spectr. Temp. ..... Dome Temp./Hum. -2.1°C 67.3% Transparency Conditions ... Part... cloudy 32

Focus ..... 6-9.5 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C2 400 050 1024 41 CCOFMTT

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V 260	2"	11.5	m0	CHSS CCD	1800u 47.73	306u	5300Å	14	AC+41 537-54	cloudy	
								15			
								15			
677.	2-3"	9.65	m2					16	MARq std/vel	4/10 8:36	
								17			
								17			
344	2-3"	5.25	m2	UV6				18	Regular	std/vel	
								19			
								3			14K
								1			
				CHSS CCD	47.06	306u	5184Å	1/2			
								20			63K
1235	3"	8.0	F3					21			
1205								22			
1070								22			
								23			

PG 3. Mon/Tues
309
Date 1998 Mar 23/24 Observers Lu/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900 2000	Declination 1900 2000	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Temp. / Focus / Spectr. Temp.
cc53227	BIAS(4)			22 59					0	
28	comp							FeAr ND 1	4	
29	HT Vir	13 46 07	05 06 07	23 06 02					660	1840 3"
30	"	"	"	23 17 26					727	1630
31	"	"	"	23 30 05					660	2050
32	comp							"	4	
33	HT Vir	"	"	23 44 39					660	560
34	"	"	"	23 56 01					660	840
35	"	"	"	00 07 24					660	2000 3"
36	comp							"	4	
37	BIAS(4)			00 19					0	
38	HT Vir	"	"	00 20 48					600	2150
39	"	"	"	00 31 16					600	2380
40	"	"	"	00 41 45					600	2420 3"
41	comp							"	45	
42	HT Vir	"	"	00 54 22					637	1530

Spectr. Temp. −100.4°C Dome Temp./Hum. −3.4/62.0 Transparency Conditions OK — Fairly cloudy 310

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 400 0 50 1024 4 1

Comparison Filter	Exp	Exp. Mtr. 1000's	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	0					CASS CCD	1800 ln/mm 47.06	306μ	5184	1			
	4									23			
	660	1840	3"	7.16	G0					24			
	727	1630								25			
	660	2050								26			
	4									27			
	660	1560								28		through clouds	
	660	1840								29			
	664	2000	3-4"							30			
	4									31			
	0									1			
	600	2150								6			
	600	2380								7			
	600	2420	3"							8			
	45									9			
	633	2580								10			

pg #4 Mon / Tues

311

Date 1998 MAR 23/24 Observers Lu/Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900 2000	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5324 3/44	HT Vir	13 46 07	+05 06 57	01 05 35,	01 16 14				628/600
45/46	Comp	BIAS(4)		01 29				Fe Ar ND1	4s
47/49	HT Vir	"	"	01 30 45,	01 41 08,	01 51 56			600, 600, 600
50	comp							"	4
51/52	HT Vir	"	"	02 03 52,	02 14 14				600 600
53/54	comp	BIAS(4)		02 25				"	4, 0
55/61	flats							Tung ND 3	5
62/63	comp	BIAS(4)		02 45				Fe Ar ND 1	4, 0
64	HD 136202	15 14 12 1900	02 08 37	02 46 25					280
65	comp							"	4
66	comp							"	4
67/68	HD 109247	12 28 12 1900	55 21 00	02 59 31,	03 11 59				720 X2
69/70	Comp, comp	1991.25						n	4
71/72	FU Dra	15 34 46	62 16 44	03 35 34,	03 51 00				900
73	Comp							n	4
74	BIAS(4)			04 13					0

Spectr. Temp.

Focus 6.9

Spectr. Temp.

Exp Mtr Seq

2.2K 2.5K 4

2.5K 2.4K 2.45K

2.5K 2.54K

2.8K 3"

CCD
Spectr. Temp. ~100.3°C ..... Dome Temp./Hum. -47°C 65.9%H Transparency Conditions . hazy. clear .....

Focus .... 6.95 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 41 CCDFAST .

Exp. Mtr. 1000 V	Seeing	Pvg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2.2K 2.5K	4"	7.16	GO	CASS CCD	1800/in 4706	30u	5184Å	11/12			
								13			
2.5K 2.48K 2.45K								14/16			
								17			
2.3K 2.34K								18/19			
								20, 1			
								3			14.5K
								5, 1			
7.8K	3"	5.06	F8 II+D					6			
								7			
								8			
1303 1250 2.3"		8.2	F2					8/9			
								10, 0			
168		10.5	GO					11/12			
								1			
								1			

It's strange. actually get a comp image at the region. all the Keywords in header are OK.
triple-gator.

GPIB ERROR BEFORE upon doing Readout on CCS3272. However it woke OK
RESET All BEFOR and comp.

313 pg 45

Date 1998 MAR 23/24 Observers L.A./T.M.

32

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CG81233/36	HD144579	ε CG81237/38						4x 2c	67ms 133ms
CC5275	Comp							Red NDIs	4s
76	HD144579	160130 (1400)	+392400	042425					300
77	Comp							Red NDI	4s
78	Comp							"	"
79	OU Ser	152244 (19625)	+161541	043740					100
80	"	"	"	044804					600
81	"	"	"	045826					655
82/83	Comp =	BIAS(4)		0510				"	4s
84	OU Ser	"	"	051145					600
85	"	"	"	052208					600
86	Comp							"	4
87	BIAS(4)			0533					0

Spectr. Temp. ..... Dome Temp./Hum. ~~-6.5°C~~ 68% H Transparency Conditions ...O.K..... 314

Focus ....6.95.....

Spectr. Temp. ..... Dome Temp./Hum. -6.1°C 62.8% H 400 0 50 1024 4 1 CCDFMTT

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	3-5"				Above 306u		5187	3	Seeing Test		
				CASS CCD	1800L 47.06°	306u	5184P	3			
2250		6.66	dG8					4	Std Vel		
								1			
								5			
~1500	2"-5"	8.2	G5					6			
1080								7			
1092								8			
								9			
940								10			
1100								11			
								12			
								1			

315 Pg #1 Tues / Wed

Date 1998 MAR 24/25 Observers ... Hjx. / T.H. .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce154a/02	In b/out Board							ThAr	2/2
03	BIAS(4)			19~~43~~33					0
04	Comp								2
05	HD62509	7 39 12	+28 16 07	19 43 58					115
06	Comp								2
07	Comp								2
08	HD84999	9 43 53	59 30 33	20 05 17					360
09	✓ (~~Comp~~) HD84999	"	"	20 11 59					431
10	~~out Board~~	"	"	20 19 57					360
11	~~Ver~~	"	"	20 26 42					405
12/13	Comp &	BIAS(4)						ThAr	2s
14	HD84999	"	"	20 46 34					368
15/17	"	"	"	20 54 07,	21 01 18,	21:07:57			360
18	Comp								2s
19/24	HA84999	"	"	21:17:10					360c
25	COMP							"	2s

CCD Spectr. Temp. −100.2°C Dome Temp./Hum. +2.5°C 54%H Transparency Conditions Fine 316

Focus .2225, But unchanged from previous setting

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Prg. Mag.	Sp.	Inst.	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1220V				Echelle 18.00	0606 .4585	100µW 400µH	4508A	1/2	100µW=.369 400=.225	0 0 128 1024 8 8	MAX
								1		0 0 256 1024 4 1	
								3			7K
24K	·	1:14	K0 III 6					2	Std Vel		7.7K
								3			6K
1000V	~~1"~~	4	~~F0~~					3			
1.1K	1"-2"	4	F0					4			
1.2K								5			1.5K
1.1K								6			
1.2K								6			
								3			
1.1K	1"-2"							1	Had to Reboot ALL due to typo		
1.1K	2"							2	using 3600BS.BAT · 3		
								3			
								4		360 OBS.BAT 6	
								3			

817 Pg#2 Tues/Wed

Date 1998 MAR 24/25 Observers Hjx/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce154 26/30	HD84999	9 43 53	+59 30 33	21 59 11,	22 05 51,	22 12 30,			360s
32/33	Bi HS(4) & Comp			22 19 09,	22 25 49,	22 32 28		ThAr	0,2
34/39	HD84999	"	"	22 42 59,	22 49 39,	- - - -	- - -		360s
40	Comp							"	2s
41/46	HD84994	"	"	23:43:14	- - - -	- - -	-		360
47/48	Comp & Bi HS(4)							"	2s
49/54	HD84994	"	"	00 28 25					360s
55	Comp							"	2s
56/61	HD84999	"	"	~~01 23 37~~					360s
62/63	Comp & Bi HS(4)			01 53					2s
64/69	HD84999	"	"	01 54 36					360s
70	Comp & ~~Bi HS(4)~~			~~02~~					2s
71	Comp								2s
72	HD84999	"	"	02 47 06					360
73	"	"	"	02 49 01					"
74	"	"	"	02 55 37					"

CCD
Spectr. Temp. -101.4°C Dome Temp./Hum. 1005°C 592&H Transparency Conditions . Fine - slightly hazy 3B

Focus .2225

Spectr. Temp. Dome Temp./Hum. CO

Exp. Mtr. 1000 V	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ x Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1.3K, 1.2K, 1.1K, 1.3K, 1.2K, 1.1	1-2"	4	FO	Echelle 18.00	0600 m .4585	100u W 400u H	4508A	4		Repeat 360 OBS. BHT 6	
								1, 3			
								5		Repeat 360 OBS BHT 6	
								3			
1K,	2"							4		Repeat 360 OBS. BHT 6	
								3			
								6		Repeat of 6	
								3			
900	1-3"							5		Repeat of 6	
600,								3			
~770	1-3"							2		Repeat of 6	
								3			
								3		now Tel East Side	
900								4			
840								4			
830								4			

319 PH3 Tues/Wed

Date ...1998 MAR 24/25... Observers ...MJK/LTH.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
C0954 75/77	HD84999	9 43 53	+54 30 33	030220					360s
78/79	Comp & BIAS(4)							ThAr	2s
80/85	HD84999	"	"	032635					360
86	Comp.							"	2s
87/92	HD84999	"	"	040857					360
93/94	Comp & BIAS(4)							"	2s
95/500	HD84999	"	"	045217					360
01	Comp							"	2s
02/11	FLATS x 10							TUNG	25
12	BIAS(4)			0551					0

Spectr. Temp. ..... Dome Temp./Hum. -1.7°C 61.3%H Transparency Conditions ... slight haze ... 320

Focus ..... 2225 .....

Spectr. Temp. ..... Dome Temp./Hum. -1.9°C 84.4%H

Telescope East Side

Exp. Mtr. 1080V	Seeing	Pig. Mag.	Sp.	Inst. Echelle	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~	2½"	4	FO	18.00	0600/m .4585	100µ 400µH	4508Å	Ex:		Repeat x 3	
								3			
Top 2								2		Repeat x 6	
								3			
~540	3"							4		Repeat x 6 1.9 AIRMASS	
								3			
								2		Repeat x 6	
								3			
						100µ = .262					
						600µ = .205		1			11.5K
								1			

pg 1

321 Wed / Thurs

Date 1998 MAR 25/26 Observers Hjx / ITn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce15513	Comp							ThAr	45
14	HD62509	7.3912	+28 1604	19 3200					438
15	Comp								4c
16	BIAS (4)								0
	1998 MAR 28/29 Hjx/ITn			SAT / SUN				* In IR HF switch the aperture	
*	Note, that after Refocus of Echelle, that some of next Blue order is showing.								
ce15517	Comp							ThAr	4
18	HP 84999	9 4353	+59 3035	21 3429					605
19/21	"	"	"	21 4508	start of 3				600
22/23	Comp & BIAS (4)			22 21					45
24/26	HD84999	"	"	22 2457					600
27	Comp								
28	HD84999	"	"	22 5949					600
29	"			23 1049					600
30	"			23 2152					

Spectr. Temp. ..... Dome Temp./Hum. +2.6°C 63%H Transparency Conditions ..Some cloudy..... 327

Focus .....+.2225..... (unchanged)

Spectr. Temp. ..... Dome Temp./Hum. 0 0 256 1024 4 1 CCDFmtpt4x

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				Echelle 18.00	0600ℓ/m .4585	100μ=.262 400μ=.225		3			12K
2.7K	2"	4/4	KOMB					4	Std vel and normalization star		6K
								3			
								1			
				Echelle 18.00	0600ℓ/m .4585						
				+13.3°C	50.6% H	100μ .262 400μ .225			GRadual Clearing after Storm		
Focus changed to				~~2800~~ .235 Echelle 18.00				1			10K
460	4"	4	FO					2		non normalized exposure 1α -00 0037 1δ -00 0606	
460 each	3-4"							2		600 OBS. BAT x3	
								3			11K
~520	3-5"	4	FO					2		600 OBS. BAT x3	
								3			
~540								2			
~430								4			
								4			

323 pg 2 SAT/SUN

Date 1998 MAR 28/29 Observers Hix/Tin

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce1553	Comp / ~~BIAS(4)~~							ThAr	4s
32	HD84999	9:43:53	59:30:35	23:39:15					600s
33	"	"	"	23:45:29					601
34	"	"	"	23:56:44					486
35/36	Comp &	BIAS(4)		00 08				ThAr	4s
37	BIAS(4)			01 37					0
38	Comp								4s
39	HD84999	9 43 53	+59 30 35	02 01 43					607
40	"	"	"	02:14:08					439
X 50	Comp	X with Hgs	after Flats	02 39					4s
* 41/49	FLATS x	9						TWNG	35
51	BIAS(4)			02 58					0

Spectr. Temp. ..... Dome Temp./Hum. +12.1°C 83%H Transparency Conditions ..Part Cloudy 324

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

→ completely so.

Comparison Filter	Exp	Exp. Mtr. 1000V	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ × Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
Hr	45					Echelle 18.00	0600 14585	100u 400u	4508Å	3		100u W = .262 400u H = .225	
	600									4			
	601									5			
	486	258								5		clouded	
Hr	45									3			
	C									1			
	4r									3			
	607		45"	4	FO					4			
	487									4		cloud	
	45									3			
Hr	25							500u H = .215		~~6~~			
	C									1			
													-

PG 1
325

Mon / Tues

Date 1998 MAR 30/31 Observers HJK / TH / LA

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCD5552/53	Tnb / OUTBOARD	~~OVERLAP 52, 53~~						TbAr	4/3
54	Comp								3
55	HD84441	094011	+241405	224453					460
56/57	Comp +	B/HS(4)							3
58	Comp								3
59/62	HD84999	9 4353	+59 3033	[231429]	[232509]	[233542]	[234644]		600
63	Comp								627
64	HD84999	"	"	235831					602
65	"	"	"	000910					600
66	"	"	"	002040					360
67	"	"	"	002749					600
68/69	Comp +	B/AS(4)		00 39					3
70	HD 84999	"	"	00 40 56					605
71	"	"	"	00 51 49					600
72				01 02 46					600
73	comp								4

Spectr. Temp. -099.7°C Dome Temp./Hum. +17.5°C 7088H Transparency Conditions Hazy to part cloudy

Focus 235

Spectr. Temp. Dome Temp./Hum. C2 0 0 256 1024 41 CCOFMT

326

Exp. Mtr.	Seeing	Pk. Mag.	Sp.	Inst. Echelle	Grating/ + Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000V				18.00	0600 4 .4580	100u .262 400u .225		1/2	focus	Full frame	
							4508Å	3			
435	5"	2.98	G I II					4	Std vel		
								3			
								3			
140/74	3-4"	4	FO					2	5, 6, 6	4 ~ 10 min observations	
38/42								3		some cloud	
56								5			
140	2"	4	FO					5			
210								5			
160	2-3"							5			
								3/1			
37								2			
33								3			
98								4			
								3			

PG 2

327 1998 Mar 30/31 Hg X/Lu/Tm

Date ..... Observers .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE15574	HD84999	09 43 53	59 30 33	01 16 03					600
75	BIAS(4)			01 40					0
76/85	flats							Tung	25

Spectr. Temp

Focus.....

Spectr. Temp

Exp Mtr 1000V | S
28

Spectr. Temp. −100 2 Dome Temp./Hum. 15.7 / 78.3 Transparency Conditions Hazy – Cloudy 3/8

Focus 0.235

Spectr. Temp. ..... Dome Temp./Hum. 15.9°C / 76.4% H 00 256 1024 4 1

Exp. Mtr. 1000 V	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
28		4	F0	18.50	600 1000 4580 400	0.262 0.225	4508	5			
								1			
						500u = .215		1		All to CRUX J Thomas Hijack	11.5°K

PG1

329 Date 1998 Apr 04/05 Observers Hzx/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE15586/87	Inboard/outboard							ThAr	4/4
88	BIAS(4)			1950					
89	comp							"	4
90	HD62509	07 39 12	28 16 04	19 58 07					110
91	comp							"	4
92	comp							"	4
93	HD84999	09 43 53	59 30 33	20 21 42					600
94	"			20 32 25					600
95	"			20 43 10					600
96	comp							"	4
97	HD84999			20 57 11					600
98	"			21 07 52					600
99	"			21 18 32					600
CE15600	comp							ThAr	4
601	BIAS(4)			21:30:00					0

Spectr. Temp. −100,3°C Dome Temp./Hum. 5.1/57.5 Transparency Conditions ...clear... 330

Focus ...good at 0,225 surprise?...

Spectr. Temp. ..... Dome Temp./Hum. 0 0 256 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Echelle 18.00	0,262 0,225	2/3	4508				
						1					
						4					13K
	2"-3"	1.14	KOIII			5					
						4					
						3					
		4	FO			4				good	
						5				clouds	
						6					
						7					
.00						4					
750						5					
368						6					
						7					
						1					

PG2

331

Date 1998 April 04/05 Observers Hix/Lu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE15602	HD84999			21:32:20					604
603	"			21:43:09					360
604	"			21:49:55					360
605	"			21:56:36					360
606	Comp								4
607/611	HD84999		22:05:25,	22:12:04,	22 18 ?	22:25:23	22 32 02		
612	Comp								4
613	BIAS (4)			22:40:00					0
614/618	HD84999		22:42:17	22:48:56	22:55:36	23:01:15	23:08:54		
619	Comp								4
620/624	HD84999		23:17:15	23:23:54	23:30:33	23:37:22	23:43:32		
625	Comp								4
626/630	HD84999		23:50:39	23:57:18	00:03:57	00:10:36	00:18:37		
631	Comp								4
632	BIAS (4)			23:41:35					0

Spectr. Temp. −100.3 Dome Temp./Hum. 28/62.1°C Transparency Conditions clear w/some clouds

Focus 0.225

Spectr. Temp. Dome Temp./Hum.

332

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
480						4	4508				
430						5					
420						6					
455						7					
						3					
520						4				5x	
						3					
						1				~~5x~~	
						5				5x	
						3					
						6				5x	
						3					
						4				5x	
						3					
						1					

PG 3

333 1998 Apr 04/05 Date ..... Observers Hjx / Lu

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE15633/637	HD84999		00:43:46	00:50:25	00:57:04	01:03:43	01:10:22		360
638	comp							ThAr	4
639/643	HD84999		01:08:00						360
* 649	comp							"	4
644/648	HD84999		01:53:27	02:00:06	02:06	02 13	02 20 04		360
50	comp							"	4
51	BIAS(4)				02 29				0
52/54	HD84999			02 30 45	~~02 41 26~~				600
53	comp							"	4
54/56	HD84999		03:08:47	03:19:38	03:30:21				600
~~57~~	comp								4
58/60	HD84999		03:42:40	03 53 22	04:04:17				600
61	comp		~~04:00~~						4
62	BIAS(4)								0
63/65	HD84999		04 17 36	04 28 19	04 39 25				601
66/77	comp, BIAS(4), FLAT(0)							Tung	25

Spectr. Temp. −100.32 Dome Temp./Hum. 15/65.2% Transparency Conditions clear

Focus 0.255

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				18.00	600 0.262 4580 0.225		4508			5x	
						3					
						6				5x	
						3				* Not save on time. Saved it later. 5x be careful for reduction.	
						5					
						2		3			
						1		1			
								6		1x 6 wobbs. bot doesn't work?	
								1			
490								2/4		3x	
						3					
456						5/7				3x	
						3					
						1				3x	
450						4/6					
					500/4 .215						

335 pg#1 Sun/mon

Date 1998 Apr. 5/6 Observers Hjx. I.Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce156 FB 87	FLATS x10							TUNG	25
88	BIHS(4)			1929					0
89	Comp							ThAr	45
90	HD62509	73912	+281604	193603					205
91	Comp							"	45
92	Comp							"	45
93	HD84999	94353	+593033	19					360
94/99	"	"	"	195921					3600
700	Comp							"	45
701/06	HD84999	"	"	204053					3600
07	Comp							"	45
08	BIAS(4)			212117					0
09/14	HD84999	"	"	212335					360
15	Comp							"	45
16/21	HD84999								360
22	com								45

Spectr. Temp. −101.5°C Dome Temp./Hum. ~~14.0~~°C 56% H Transparency Conditions Clear (spotless) 336

Focus .235, still good enough. set for s/ cooler than now, for Focus test done, but lost.

Spectr. Temp. ..... Dome Temp./Hum. ..... CD 0 0 256 1024 4 1 CCDEMT

Exp. Mtr. 1000 V	Seeing	Pkg Mag.	Sp.	Inst. Echelle CCD	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				18.00	0600 l/m 14580	100u W 4508Å 500u = .215 H		2			
								1			
						100u H = .262 400u H = .225		3			13K
3.5K		1.4	K0III b					2	std vel		7K
								3			
								3			
550	1-2"							4		just one exp.	
	2"							4		using LL 6x6 min. Bat	
				* not 50; In noted later.				5	~~Import~~	~~LL 6x6 min. bat~~	
								5	Impt	" "	
	note (3600 BS, actually 360s + 19 secs). (36 secs between starts of 360 obs exps)							3			
	* [OK. Readout Tyke 19 secs; w.f.ts takes 8 secs] + Prism steel in 'Obs' command.							1			
								6		LL 6x6 min. Bat	
								3			
										LL 6x6 min. Bat	

337pg#2 Sun/Mon

Date 1998 Apr 5/6 Observers Hjx/Tg

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD ST23/28	HD84999	09 43 53	+59 30 33	22:52:06	(second)				360
29	Comp							ThAr	4s
30	B/A 5(4)			2326					0
31/36	HD84999	"	"	23 2825					360
37	Comp							ThAr	4
38/43	HD84999	"	"	00:09:07					360
44	Comp							ThAr	4
45/50	HD84999	"	"	00:50:14					360
51	Comp							ThAr	4s
52	B/A 5(4)			01 31					0
53/58	HD84999	"	"	01 3303					360
59	Comp							ThAr	4
60/65	HD84999	"	"	02:13:36					360
66	Comp							"	4
67/72	HD84999	"	"	02 5409					360
73	Comp							"	4

Spectr. Temp
Focus
Spectr. Temp

Exp Mtr. Diary

350

500

340

Spectr. Temp. ..... Dome Temp./Hum. +1.6°C 62.3%H Transparency Conditions ....Fine.....

Focus ....'235.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr. 1000V	Seeing	Pix. Mag.	Sp.	Inst. Echelle CO	Grating/ X Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
~350	1½	4	FO	18.00	0600ℓ .4580	100μ 400μ H	4508Å	2		<< 6x6min. Bat (includes 4 comp)	
								3			
								1			
								2		<< 6x6 min. Bat	
								~~3~~			
								4		<< 6x6min. Bat	
								3			
~500	2'							5		<< 6x6min. Bat	
								3			
								1			
								2		<< 6x6min. Bat.	
								3			
~340								6		<< 6x6min. Bat.	
								3			
								4		<< 6x6min. Bat	
								3			

389 pg #3 Sun/Mon

Emulsion Batches:

Date ..1998..Apr. 5/6.... Observers .Hix/Tn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CE15781*	BIAS(4) written later as*		CE15781	03:34:50					0
78/79	HD84999	9 43 53	+54 30 33	03:36:11					360
80	Comp							ThAr	4s
87/87	HD84999	"	"	04:16 54					
88	Comp							"	4s
89	HD84999	"	"						360
90	"	"	"	05:04:00					485
91	Comp								4s
92	BIAS(9)			05:13:54					0

Spectr. Temp. ..... Dome Temp./Hum. +0.3°C 65%H Transparency Conditions ..slightly..hazy..... 340

Focus ....1235.....

Spectr. Temp. ....+00.3°C..... Dome Temp./Hum. -00.1°C 67%H

Exp. Mtr. 1000V	Seeing	Pur. Mag.	Sp.	Inst. echelle CCD	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				1800	0600 l/m .4580	100u W 400u H	4508Å	1			
300	2"-3"	4	FO					5		2< 6x6 min. bal	
								3			
								2		<< 6x6 min. bal	
								3			
								4			
	3"4"	4	FO					4		2.4 AIR MASS	
								3			
								1			

34 pg#1 Mon / Tues ✓ Tracy Clarke

Date 1993 Apr. 6/7 Observers Gld./Ter./Tn.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC532 88/89	InBoARD/OUTBOARD							FeAr ND1	4/4
90	B/HS(4)								0
91	Comp							FeAr ND2	4s
92	USNO 0551498	11 4323	+63 40 40	20 1043					180
93	"	"	"	20 4101					1800
94	Comp							"	4s
95	USNO 0551498	"	"	21 12 55					1801
96	"	"	"	21 43 19					1800
97	Comp							"	4s
98	B/HS (4)			2214					0
99	USNO 0551498	"	"	22 1654					1800
300	COMP							"	4s
301/10	FLATS x10		NO 4.4505,	MAX/HK				"	4s
11	COMP								
12	HD120315						1.2 UD in other beam		283
13	Comp								4s

CCD
Speetr. Temp. −100.4°C Dome Temp./Hum. +5.5°C 42%H Transparency Conditions ... Fine ... 312

Focus ... 6.85 ...

Spectr. Temp. ... Dome Temp./Hum. ...

000, BA. of (3 sec) bright ~~0~~ 1 mm of ~~0~~ 2 stellar like image RA 16 30 +28° @ 21 50 EST

400 0 50 1024 41 CCOFmT

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1320V				CASS CCD	1800 l/mm 51.58	25u	5894 Å	3/4			
							± 1 Å e RAW 512	1			
								6			13K
1180	2-3"	12.5?	A3?					7			
1215								8		@ 0216 E, 1400 0023 16 00 0039	
								9			
1201	1"-2"							10			
1174	1"-2"							11			
								12			
								1		Shared RA slow DOH. Temp fix.	
1172								13			
								14			
								16			
500V 10K								17		Telluric. 6K max	
								18			

3L13pg#2 Mon/Tues

Date 1998 Apr. 6/7 Observers Gld/Tec/Tus

Emulsion Batches:

Plate No.	Object	R.A. ~~1900~~ 2000	Declination ~~1900~~	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC5334	Comp	pgm = Peter MAAT in cloud				ND in stellar Beam Removal of coarse.		Fe Nr ND2	4s
15	USNO pgm-46 *	14 41 02	+48 40 50	23 52 41					1800s
16	"	"	"	0 23 06					38[illegible]
17	Comp							"	4s
18	BIAS (4)			01 28					0
19	USNO pgm-46	"	"	02 30 29					1800s
20	Comp							"	4s
21	Comp							"	4s
22	tyc 4194 2188	16 49 45	+64 07 15	02 07 23					1800
23	Comp								4s
24	tyc 4194 2188			02 39 21					1807
25	"			03 10 02					1800s
26	Comp							"	4s
27	tyc 4194 2186	"	"	03 41 46					1800
28	"	"	"	04 12 22					2016
29	comp							"	4s

Spectr. Temp. ..... Dome Temp./Hum. 12.9°C 52%H Transparency Conditions Fine 364

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. ..... CJ 400 0 50 1024 41 CCOFFSET

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
1320V				CHSS CCD	1800 l/mm 51.58	25u	5894Å	19			
1347								20			
2850	1-2"							21			
								22			
								1			
1305	1"							23			
								24			
								25			
3050	2"							26			
								27			
3K								28			
3480								29			
								30			
3100	1-3"							31			
3173								32			
								33			

345 pg #3 Mon/Thurs

Date 1998 Apr 6/7 Observers Gld/Ter/Tan

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC53330	comp							FeAr NO2	4/5
31	HD177724	190049	+34253	045750		ND0.6 in Stellar		Bare	370s
32	Comp								4s
33/34	B1A5 (4) x2								0s

Spectr. Temp.

Focus.....

Spectr. Temp.

Exp Mir Se

~~1440~~ 1200 sec

20K

Spectr. Temp. ..... Dome Temp./Hum. +2.1°C 48.6% Transparency Conditions Fne 346

Focus 6.86

Spectr. Temp. ..... Dome Temp./Hum. +2.0°C 50% H

Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~1300~~ 1000V				Cass CCD	1800 m/m 51.58	250μ	58~~44~~	3			
20K	4"							4	Telluric	12.5K max	
								5			
								1,			

347
pg #1

Tues/Wed

Date 1998 Apr 7/8 Observers Gld / Tm

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc5333⅝	Inboard / aft							FeAr ND1	4/6
37	Comp							FeAr ND2	4
38	HD 70272	8 15 59	+43 30 32	19 20 11					52
39	Comp								4
40	BIAS(1)								0
41	Comp								4s
42	HD 62509	7 39 12	+28 16 04	19 30 37			* ND 1.2in stellar		25s
43	Comp						↓	"	4s
44	Comp							"	4s
45	FF Cnc	2000 08 29 40	17 17 02	19 41 31			ND Removed		1500
46	comp.							"	4s
47	FF Cnc	"	"	20 13 02					1613
48	Comp							"	4s
49	FF Cnc			20 44 51					1400
50	Comp							"	4s
51	BIAS(4)								0

CCD Spectr. Temp. -100.2°C Dome Temp./Hum. 8.8°C 38% Transparency Conditions ..increasing cloud 31B

Focus ..6.85.....

Spectr. Temp. ..... Dome Temp./Hum. ..... CD 400 0 50 1024 4 1 CCDFMT N MAX

Exp. Mtr.	Seeing	P.C. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1000 V				CASS TyRaTing	1800 l/m 4706°	306u	5184Å	3/4			
								5			
4K		4.25	IT4.5 III-IIIb					6			
	1"							7			
								1			
								8			8K
13K	1"	1/4	K0 IIIb					9	stellar	* moved about slit Randomly too.	
								10			
1320V								10			
5.9K	1"	11	K0/K4					11		thin cloud ~170 ABOVE	300 BIAS
								12			
6.1K	<1"							13		thicker cloud	
								14			
6.0K								15			
								16			
								1			

349
P942 Tues/Wed

Date 1998 Apr 7/8 Observers Gd/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
52	comp							FeAr ND1	4s
53	FFCnc	06 29 40	2000. 17 17 02	21 35 12					1800s
54	comp							"	4s
55	FFCnc.	"	"	220643					1801
56	Comp							"	4s
57	FFCnc	"	"	223832					568
58	Comp							"	4s
59/67	FLATS x9							TuNG NO3	4s
68	BIAS (7)			2255					0

Spectr. Temp.
Focus
Spectr. Temp.

Exp Mtr Se

CCD

Spectr. Temp. -100.2°C Dome Temp./Hum. 6.8°C 41.9 Transparency Conditions ~ part. cloud, 350

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. 5.5°C 43%H

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Cass	47.06	306μ	5184Å	16			
5K	2"	11	K0/K4					17		cleaning	
								18			
5K	2"							19			
								20			
1600								21		end in clouds.	
								~~22~~		~~end~~	
								24			1177K
								1			

35 Pg #1 Thurs / FRi

Date 1998 Apr 9/10 Observers Hix / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
C9157 93/94	Inboard/outBoard							ThAr	4/3
95	Comp							ThAr	3s
96	HDG2509	7 3912	+781604	21 1627					600s
97	Comp							"	3s
98	B/HS (4)			2130					0
99	Comp							"	3s
800	HD84999	9 4353	+593033	[21 4059]	[215156]	[22:02:37]			600
03	Comp								3s
04	HD84999			[22:15:08]					600s
05/07	"			22 27 51	22 36 31	22 45 12			480s
08/09	Comp & B/HS(4)			22 55				ThAr	3s
10/14	HD84999			[22:57:19]	[23:05:59]	[23:14:39]	[23:23:19]	[23:31:59]	
C9158 20/25	Comp written after ac C9158 20								3s
15/14	HD84999			[23:41:55]	[00:50:35]	[00:39:15]	[00:07:55]	[001635]	480s
C9158 21	Comp								3s

Spectr. Temp. ..... Dome Temp./Hum. 7.5°C 4%H Transparency Conditions . Hazy. to phot. cloudy. 352

Focus ..... 231 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... X grating adjusted Today. ∴ Different Exp/Mtr & X grating settings

Exp. Mtr.	Seeing	Pix Mag.	Sp.	Inst. Echelle	Grating/ X Tilt	Slit	Emulsion	P.H.	Program	Remarks (For Same Coverage)	Quality
1000V				17.70	0600/m 4620	100u W 400u H	4509 *	3/4	focus test		
								5			
830	3	1.14	KO III b					6	std vel		1.8K
								5			9AK
								1			
1320V								3		Telescope East side of Axis	
3400		4	FO					4, 5, 6		(max ~900)	
"								3			
3.8K								2,			
2.7K	3"							4		4800Å.BAT x3	
								3			
1.8K								~~5~~			
								3			
2K	2"-4"							6		19 obj.s!	
								1			

353 Pg #2 Thurs/FRi

Date 1.9.9.8. Apr. 9/10.... Observers .H.J.x./.T.n.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce158 22/26	HD 84 999	9 4353	+59 3033	[00 27 09]	[00 35 36]	[00 44 56]	? not noted	? not noted	480
~~23/26~~	Comp ε (BIAS (4) ce15827)			01 11				Th Ar	3sec
28/31	HD 84999	"	"	[01:14:38]	[01:25:18]	[01:35:59]	[01:46:39]		600
32	Comp								3s
33/36	HD84999			[02:00:34]	[02 11 15]	—	[02 32 35]		600
37	Comp								3s
39	BIAS (4)			02 50					6
40	Comp							Th Ar	3s
41/46	HD127762	14:28:03	38:44:44	[02:57:39]	[03:04:19]	[03:10:58]	[03:17:37]	[03:24:16] [03:30:55]	360
47	Comp						missed one		3s
48/53	HD127762	"	"	[03:40:39]	[03:47:18]	[03:53:58]	[04 07 17]	[04:13:56]	360
54	Comp							Th Ar	3s
55/62	HD127762	"	"	[04:22:22]	[04 29 01]	[04:35:41]	[04:42:20]	[04:48:59]	360
63	Comp			[04:55:39]	[05:02:18]	[05:09:01]		"	3s
64/73	FLATS x 10							TUNG	25s
74	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. 4.6°C 40% Transparency Conditions ... Part Cloudy / Hazy 3

Focus ..... 2.31 .....

~~Spectr~~ CCD Temp. -101.5°C ... Dome Temp./Hum. +1.5°C 42.4% CA

Exp. Mtr. 1320V	Seeing	Pig Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
200K	3"-4"	4	FD	Echelle 17.70	0600m .4620	100u 400u	4509	4,5		* This Exp 504secs	
This Comp is ce15838 written Late								3 & 1			
								2			
								7			
								6			
								7			
								1			
								3			
now 1000V											
700			ATLL					2		Repeat 360OBS, BAT 6	
								3			
~750								2		Repeat 360OBS, BAT 6	
								3			
	3"-5"							4		Repeat 360 OBS BAT 8	
								3			
						400u W 500u H=.215		3		MAK 0.5K	
								1			

Emulsion Batches:

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Date ..... Observers .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex

HD 120315 good Gld Telluric